





# The Journal of Ayurveda 1925



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Reg. No. C 1287.

“नात्माश्चिं नापि कामार्थम्—अथ भूतदयां प्रति”—(Charaka.)

# The Journal of Ayurveda

or the Hindu System of Medicine

HONY. EDITOR-IN-CHIEF:

MAHAMAHOPADHYAYA GANANATH SEN, M.A., L.M.S.

Annual Subscription ... Rs. 10.

Vol. 1. ] March 1925. [ No 9.

## TABLE OF CONTENTS.

1. Why the Amalgamation of Ayurvedic Colleges fell through	...	...	...	315
2. Steps towards the Ayurvedic Renaissance	...	...	...	319
3. Hygienic Methods in Ayurveda	...	...	...	320
4. Metals in Ayurveda	...	...	...	330
5. The Superiority of Ayurveda	...	...	...	342
6. Purgatives in Ayurveda	...	...	...	347
7. Reviews and Notices of Books	...	...	...	351
8. Correspondence	...	...	...	351
9. Anatomical Nomenclature	...	...	...	353

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## TABLE OF CONTENTS.

1. The Tridosha Theory	...	...	...	432
2. The Theory of Tridhātu	...	...	...	437
3. Vegetable Drugs in Ayurveda	...	...	...	445
4. Medical Jurisprudence in Ayurveda	...	...	...	448
5. Asthma in Ayurveda	...	...	...	452
6. Purgatives in Ayurveda	...	...	...	465
7. A Brief History & Outlines of Ayurveda	...	...	...	468

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March, 1925.

[ No. 9.

## WHY THE AMALGAMATION OF AYURVEDIC COLLEGES FELL THROUGH.

The proposed amalgamation of the Ayurvedic Colleges which the Corporation of Calcutta has been contemplating for some time past is about to fall through for reasons which are being misconstrued in some quarters. The authorities of the Ashtanga Ayurveda Vidyalaya have therefore issued an appeal to the Corporation in the following terms :

"By way of a short introduction we may, in the first place, point out the eight branches into which the Rishis of old divided Ayurveda for imparting a comprehensive knowledge of the healing art and which the Ashtanga Ayurveda Vidyalaya has for the last nine years been trying to restore and develop.

1. *Shalya* or Surgery and Midwifery (together).
2. *Shalakya* or Surgery of the Eye, Ear, Nose and Throat.
3. *Kayachikitsa* or Practice of Medicine.
4. *Bhuta-vidya* or treatment of mental diseases (including the so-called obsessions.)
5. *Kaumara-Bhritya* or Hygiene and treatment of children.
6. *Agada-tantra* or diagnosis and treatment of Poisoning, by vegetable, mineral and animal poisons, including Snake-bite, Rabies, etc.
7. *Rasayana* or Hygiene and Medicine for the attainment of Longevity and Rejuvenation in old age.
8. *Vajeeekarana* or Sexual Science, including Sexual Hygiene and treatment of sexual diseases.



"Now of these branches only the third, namely the Practice of Medicine survives at the present day mostly in its clinical aspect alone, whilst the others are lost or nearly lost through loss of literature, neglect of practice and various other causes.

"In this connection we beg to draw your attention to the misrepresentation evidently made by some interested parties with the object of prejudicing the public against the Ashtāṅga Ayurveda Vidyalaya. It has been said that a combination of Ayurveda with the Allopathic system will be a scientific blunder insinuating thereby that the Ashtāṅga Ayurveda Vidyalaya is committing this blunder or drifting towards it. We emphatically protest against such insinuation. The real fact is that the public have been led to believe that Ayurvedic literature, as we have it now is complete in itself and requires no additional culture in regard to its lost sections. This is a theory which unfortunately is not borne out by facts.

"Though complete and comprehensive at one time, Ayurveda, as we have it at present, has lost or nearly lost many of its most important sections (e. g., Surgery, Midwifery, etc.) which have to be rebuilt or remodelled on the old relics with some light from the west. For obvious reasons we have often been reluctant to admit this before the public, but finding that advantage is being taken of this omission we are obliged to make the admission in view of the great necessity of recovering the lost sections. *It will be clear, therefore, that those who would mislead the country at this juncture would be doing positive harm to the cause of Ayurveda and, for the matter of that, to the cause of our national progress.*

"Ayurveda is the parent of all other medical sciences hitherto known to this world. We believe that the resuscitation of Ayurveda is possible only by methods based on a *comparative study and research* and not by blind orthodoxy. Even the treasures that we have in Ayurveda in the fields of Surgery, Midwifery, etc., cannot be unearthed unless and until the dead weight of ignorance and orthodoxy is removed. It will not be out of place to mention in this connection that it has been recently discovered that no less than 70 or 80 per cent. of the modern surgical instruments are either identical with or closely allied to the instruments described in Ayurveda by Sūsruta and Bagbhat. This discovery would not have been made without comparative study.

"It would be clear even to the lay mind that in order to revive many of these extinct and forgotten branches, we must pursue a liberal policy of assimilation of western light where necessary, and no manner of blind orthodoxy begotten of ignorance and prejudice ought to be allowed in the domain of science. It is our endeavour not only to resuscitate Ayurveda in the form in which it is known to have existed in ancient times, but revive it in all its glory so as to make it capable of standing up in rivalry



with other modern systems. Unfortunately for us the authorities of other institutions do not agree with us in this view which we, rightly or wrongly, consider to be the most rational line of thinking. There are some who betray not only a lamentable narrowness of views which makes them unable to grasp the present situation, but also a sad inclination to make uncharitable insinuations calculated to introduce untouchability even in the domain of science, although consistency between their practice and profession is hardly to be found. We regret to find that with our best efforts we have been unable to bring the authorities of the two sister institutions to share our views and we therefore honestly believe that an amalgamation with them will not be conducive to the well being of the cause which we are earnestly trying to further by devoting to it our time, energy and funds for these long years.

"It may not be out of place here to touch upon another important point which finally influenced our decision. Contrary to the recommendation of the Amalgamation Special Committee the Provisional Board of Management was formed in such a manner as to include persons who are intimately connected with, or are admittedly biased for the other institutions, (some of them being also signatories to an appeal which was issued on behalf of the Vaidya Sastra Pith even at a recent date). Naturally therefore this proposed Board failed to inspire our authorities with hope and assurance regarding the fulfilment of our much cherished ideals. If therefore we have been unable to avail ourselves of the opportunity so kindly afforded to us by the Corporation, we have been forced to do so with great reluctance and solely out of our devotion and fidelity to our ideals.

"It may be worth while to note further that with a view to prove the keenness of our desire for amalgamation, the members of the Ashtanga Ayurveda Vidyalaya serving in the Special Committee have adopted the Draft Report of the said Committee. But it will be clear to you from the anomalous manner in which the election of the Provisional Board was carried out, that *the recommendations of the Special Committee were not acted upon.*

"As gentlemen of light and leading who have been called upon not only to further the well-being of this great city and to grant relief to its teeming millions of suffering humanity but also to create the future history of this country, you will, we hope, realise the sincerity of our motive and not allow yourselves to be influenced by prejudice against one party or undue favour for the other. We stand by truth. We want to develop the science of Ayurveda in its entirety and hold it up to the world in all its past glory. It is the mission of the Ashtanga Ayurveda Vidyalaya to send out qualified students versed in all the eight branches of Ayurveda and capable of holding their own against practitioners of other schools of



medicine. We want the future-Kaviraj to enter upon the field of practice without being frightened at the sight of a surgical case requiring the use of a knife, or feeling himself at sea when confronted with a case of difficult labour ; but to manfully face the situation and manage it with the improved knowledge at his command, without having to depend upon practitioners of other systems, as is the case with the present-day Kavirajes and thus better serve the cause of suffering humanity."

As the appeal brings out clearly the fundamental points of difference between the two schools of Ayurveda fighting for supremacy in the hearts of the public of Bengal—perhaps of other provinces of India too—we make no apology for quoting the appeal almost *in toto*. We would request such of our readers to help the public with sound advice and allow themselves not to be carried away by the rosy arguments of the insincere cult of the so-called "genuine Ayurvedists" who live in their own paradise of self-sufficiency and would stand in the way of progress.

\* The recommendation stands as follows :—

1. There shall be a Provisional Ayurvedic Board which shall manage and control the affairs of the institution for one year from the date of amalgamation. This Board shall be constituted as follows :—

(a) Each of the existing three Colleges shall elect	
3 members	9
(b) The Special Committee shall elect—	
(I) 3 eminent Kavirajes not connected	
with the existing Colleges	3
(II) 6 members from the general public	6
(c) The Corporation shall nominate 3 members	3
	<hr/>
	21

(Vide p. 6, Draft Report of the Amalgamation Special Committee).



## Original Articles.

### STEPS TOWARDS THE AYURVEDIC RENAISSANCE \*

By

CAPTAIN G. SRINIVASAMURTI, B.A., B.L., M.B., C.M., I.M.S.

*Principal, Government School of Indian Medicine, Madras.*

My first duty and that a very pleasant one is to tender you my most cordial thanks for the honour you have done me by electing me as the President of this great gathering. I must confess, however, that, when only a few days ago, telegrams reached me most unexpectedly asking me if I could consent to preside over this conference, I did feel some hesitation in accepting the honour, as I then thought and still think, that it had come to me rather prematurely; but I soon settled the question by saying to myself that if it is your pleasure to command, it must be both my duty and my pleasure to obey; and thus it is that I am here to-day to do your bidding to the best of my ability.

For many years past, it has become customary for Presidents of Ayurvedic conferences to devote a good part of their addresses to defend Ayurveda against the many hostile criticisms levelled against it. I wish, if I may, to make a departure in this matter. In the first place, I had occasion, not very long ago, to state at some length what I had to say on this aspect of the matter and there is really very little I could now add, even if I had the desire to play the part of the vigorously combative controversialist—a role which, most emphatically, I do not wish to assume. In the next place, no one who has watched the trend of events in the recent past—especially in my own presidency can fail to notice that we are now at the end of the old era of misunderstanding and controversy and the beginning of a new era of mutual understanding and co-operation. One feels, Gentlemen, that the night is now far spent and the day is at hand. There are clear evidences everywhere of the dark clouds of mistrust and apathy melting before the glorious morning sun of sympathy and good-will. Cold and dead indeed must be the soul that is not

\*The presidential address delivered before the Andhra Ayurvedic Conference, Madras, and specially contributed to the *Journal of Ayurveda*.  
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moved, and moved to generous impulses at the sight of a noble Englishman rising mightily superior to the age-long prejudices of his surroundings, and being intent only on the welfare of the millions committed to his care, come courageously forward to remove, by one simple and gracious act of formally opening a Government School of Indian Medicine, that badge of Medical untouchability till now attached to Ayurveda in high quarters. Praise be to God and to those of His human instruments who readily lend themselves to the working out of His Will that "sweetly and mightily ordereth all things"; and if in this connection, there are two noble names which deserve to be remembered for all time with special gratitude, they are those of H. E. Viscount Goschen and the Hon'ble the Rajah of Panagal; the broad-minded sympathy and the extraordinary insight of our Governor, the patriotic statesmanship and the courageous determination of our Chief Minister are, if I may respectfully say so, worthy of all praise. It is to these two noblemen that we, in British India, owe the inauguration of the first School of Indian Medicine under the direct auspices of the Government—truly, a most momentous event, full of the happiest augury and promise for the future of Medicine in general and of Indian Medicine in particular; nor is this the only cause for our rejoicing and diverting every particle of our energy to planning for the present and the future instead of spending ourselves over futile controversies of the past or even of the present; for, while there are still some persons in high quarters who honestly believe that no good can come from Ayurveda, yet, it is gratifying to note that the number of true scientists who are interesting themselves in the study of this subject is steadily increasing and that wherever and whenever they had occasion to come into close contact with the really expert Ayurvedists and their methods the results have been mostly favourable to the reputation of Ayurveda. To an audience like this, it is unnecessary to recall the utterances on this subject of the Late Sir Pardey Lukis—utterances which have now become classical—and of other distinguished scientists like Col. Maclaren, Col. King, Dr. Turner and others. But there is one most remarkable utterance and also a most recent one to which I must specially refer; it comes from a most unexpected quarter, *viz.*, the editorial columns of the *Indian Medical Gazette*. No one can accuse the *Gazette* of sentimental or political partiality towards Ayurveda; opinions coming from such quarters are therefore specially valuable to us; but apart from that, the intrinsic merits of this



contribution are very great ; in the first place, the critic obviously means to help and not hinder the progress of Ayurveda ; where such is the case, it is exceedingly good for us to know ourselves as others see us ; for, it is far more likely that they see our dark spots better than we ourselves can. In the next place, the critic is one of those true scientists whose one aim is to seek out truth at all costs and whose loyalty to his own "System" does not blind him to the merits of any other "System" but what is even more valuable than these, are the writer's constructive and helpful suggestions for so planning our present programme as to ensure a well-ordered progress for the future of Medicine in India. The passages which I particularly wish to refer to are the following :—

"Of the many systems of medicine to-day practised in India, it is probably true that some nine-tenths of the masses of the Indian population depend on Ayurvedic medicine in some form or another, and that western medicine to-day only reaches about one-tenth of the population despite the network of hospitals and dispensaries with which the land is covered. (The practitioner of western medicine is wont to hold the Ayurvedic system in contempt, but that is simply on account of his ignorance of it). It admittedly has tremendous defects. Yet its merits are greater than its demerits ; *it* (Italics, the writer's) and not western medicine is the medicine of the people ; it has age-long traditions ; it is deep-rooted in the customs and habits of the people ; its dietetics especially are based upon Indian dietaries and meet Indian requirements as to caste, creed and constitution ; while many of its leading practitioners are men of great clinical acumen and skill. As yet, text books of Ayurvedic medicine are few and scanty, and the practitioner of the western system, ignorantly believing that there is no code of truth with which that system does not deal, ignores it. He would do better to study it and take from it what is good."

The writer then proceeds to state what is really the pith of the matter : "Medicine is not national but international ; it has no room for narrow, sectarian, systematic or national jealousies. Both the European and the Indian Medical graduate should get to know each other better than they do ; Medical clubs and societies should be encouraged and each large teaching Hospital should be a meeting ground for East and West, socially and professionally. What is desirable is that what is good in both systems should be combined, that the Ayurvedist shall learn the anatomy, the physiology, the modern midwifery and the present day experimental pharmacology



of the Western system ; that the practitioner of the Western system should study the dietetics, the methods of health cultivation, the better known drugs and the special methods of the Ayurvedic system. For the hundred and one everyday ills of life the Ayurvedist can prescribe just as successfully as his confrere of the Western system ; it is only in the presence of serious illness that the latter excels."

I know that many of you will not accept this last claim ; but in such matters of mere opinion, let us respect the opinions of others as we wish our opinions to be respected by them.

Finally, the writer concludes by laying down the only possible policy to be followed—*viz.*, "to study the conditions present and the systems in vogue ; to take from each what is best in it ; to build up, gradually, little by little, line by line, *a true universal system of medicine* with its own medical literature, its own indigenous pharmacopœia, its own teachers moulded and adapted to the real needs of the country and its peoples."

#### OUR AIMS AND IDEALS

If the building up of the universal system of Medicine depicted above is the ideal of our Western brethren, then we may say at once that there is really no difference of opinion in this respect between them and us. May I, in this connection refer, with your leave to the following passage written nearly two years ago, when I ventured to make an appeal on exactly similar lines :—"After all, is it necessary to be ever talking of rival systems of Medicine, as though scientific truths can possibly vary with the orient of this, that or the other geographical unit ? If the one-pointed search after truth is everywhere the aim of scientific endeavour, there can be but one system—one without a second—of any science, whether it be Physics, Chemistry, Biology, Medicine or any other. Theories and hypotheses have been, and can be many, but truth is one ; it is neither Eastern nor Western but universal. It can not be that water is  $H_2O$  in the west and somethings else in the East. Theories and methods of Easterners may well differ from those of the Westerners and there may also be different schools and sub-schools of thought amongst the Easterners and Westerners themselves. Wherever knowledge is imperfect, as it undoubtedly is in Medicine, such differences of opinion, theories and hypotheses are inevitable. But no true scientist—Eastern and Western—would ever reject a proposition, merely because it is advanced by one born or living in an orient different from his own. If it is proved that the other view is better than his own,



he would not have the least hesitation in loyally accepting it. Ever since the dawn of history there has been free and unrestricted communion between the East and the West in the domain of learning. In Medicine, as in other branches of knowledge, each has freely and joyously given to, and taken from, the other in the past. Even when kings were engaged in mortal strife, the men of medicine were freely fraternising as members of that universal brotherhood of knowledge and wisdom which knows no distinctions of race, creed, or community. The supreme object of all students of Medicine, Eastern or Western is the maintenance of health, the prevention and cure of disease. There is no better way of working towards the fulfilment of this object than to think in terms of the whole of Humanity, and of no lesser unit such as the European, the Asiatic and the like, which sometimes, unfortunately, and may I also say, so unscientifically, divide man from fellowman, even in the colourless domain of science. Many many years ago, Charaka Acharya laid down the following for the guidance of his disciples :—

तदेव युक्तं भैषज्यं यदारोग्याय कल्पते ।

स चैव भिषजां श्रेष्ठो रोगिभ्यः यः प्रमुचयेत् ॥

*Charaka, Sutrasthanam, Ch. I.*

न चैव ह्यस्ति सुतरामायुर्वेदस्य पारम्, तस्मादप्रमत्तः

शब्ददभियोगमस्मिन् गच्छेत् । \* \* \* कृत्स्नो हि लोको

बुद्धिमतामाचार्यः शत्रुश्चाबुद्धिमतामतश्च भिषमौ च

बुद्धिमता अमित्रस्यापि धन्यं यशस्यमायुषं पौष्टिकं लौकिक-

मभ्युपदिशतो वचः श्रोतव्यमनुविधातव्यश्चेति ।

*Charaka, Vimanasthanam, Chapter VII.*

“That alone is the right treatment which makes for health. He alone is the best doctor who frees us from diseases.”

“There is no end to the Science of Ayurveda ; hence heedfully, shouldst thou devote thyself to its acquisition. Unto men possessed of intelligence, the entire world acts as a proceptor ; unto men destitute of intelligence, the entire world appears as an enemy. Hence the wise should listen to and follow the counsels of even an opponent when they are instructive, praiseworthy, calculated to promote health and life and well suited to the conditions of the people.”



Can there be wiser counsels for us to follow than what is contained in the above, and may we not also adopt the view that, in so far as the one common ideal of all systems of Medicine is the preservation of health and prevention of or cure of ill-health, there can really be but one system of Medicine, of which the many existing "systems" are but parts, each part being more appropriately looked upon as a special 'School' of thought rather than as an independent system of Medicine? Consistently with this view, one would like to see that the future practitioners of India, no matter whatever denomination they belong to—Ayurveda, Unani, Siddha or European Medicine—are so schooled and trained, as to bring to bear on the problems of health and ill health, not only the expert knowledge of their own systems but, as far as practicable, the best that is in other systems also.

#### THE MEANS.

Having now stated what our aims and ideals are, the next question that naturally arises is "What are the means by which we hope to achieve our aims and ideals"? In answering this question it is necessary to remember that not only should we go on excelling in our strong points but, what is even more important, we should frankly recognise our weak ones and get rid of them as early as we can.

The system of medical training in ancient times was for the pupils to approach experienced Gurus with requests for being trained. If accepted, they lived, more or less, as members of the family of the Guru, and were given leave of discharges when the Guru thought that the pupil had made satisfactory progress. Admirable as this system proved to be in ancient times, it has now become unworkable and is fast disappearing from many parts of India; the result is that, taking advantage of the great popularity which the Indian systems enjoy, due largely to the undeniable successes of real experts (who are unfortunately few and far between) a large number of self-appointed experts have come into existence and blatant quackery has become rampant everywhere. The establishment of a sufficient number of efficient centres of Medical education with their associated Hospitals, Herbaria, Libraries, Laboratories, Museums, *etc.*, is therefore a matter of clear and urgent necessity. If, Gentlemen, we are agreed that our ideal is to see that the future practitioners of India no matter to what denomination they belong to, are so schooled and trained as to be able to bring to bear on the problems of health



and ill health not only the expert knowledge of their own systems, but, as far as practicable, the best that is in other systems also, and if further, we are not to remain content with simply enriching our own knowledge by taking in whatever is valuable in others and equipping ourselves to serve our own people more efficiently than we could otherwise do, but also consider it our high mission to serve the rest and the whole of humanity by so presenting our own treasures to the followers of other systems that they also may be able to enrich their own systems and serve their own people more efficiently than they could otherwise do—if these, Gentlemen, are our high ideals, then it necessarily follows that our ancient scheme of studies has to be so remodelled as to enable us to commune freely with other nations of the world, on equal terms, at least on that colourless, casteless and creedless platform of Medical Science to the end that we of Medicine at least may meet everywhere as brothers—brothers of service if you please—and realise each, in his own measure, the eternal truth and beauty of that wonderful Maitri (मैत्री) and Bhutadaya—(भूतदया)—love and *compassion to all beings*,—which moved our most compassionate Maharshis and venerated fathers of Medicine, to give to the world these original scriptures on which Ayurveda has been founded ; for is it not writ in our Medical Scriptures :—

अथ मैत्रीपरः पूण्यमायुर्वेदं पुनर्व्वसु ।

शिष्येभ्यो दत्तवान् षडभ्यः सर्व्वभूतानुकम्पया ।

\* \* \* \* \*

तानि चानुसृतान्येषां तन्त्रानि परमर्षिभिः ।

भावाय भूतसङ्गानां प्रतिष्ठां भुवि लेभिरे ॥

*Charaka—Sutrasthanam.*

( To be continued. )

## MEDICAL NEWS.

The 15th Session of the All-India Ayurvedic Conference and Exhibition will be held at Hardwar on the 7th, 8th, and 9th of April next. Pundit Sri Jadavji Trambakji will preside, and eminent Vaidas from all parts, India, Burma and Ceylon are expected to take part in its proceedings. It is expected that the authorities of Gurukul and Rishikul Educational Boards will make a common cause for the success of the Conference.



## HYGIENIC METHODS IN AYURVEDA.

BY

ASHUTOSH ROY L. M. S.,

*(Continued from February 1925 issue).*

Seven days before and seven days after the junction of two consecutive seasons are the limit during which time the food of one season is to be gradually changed to that of the succeeding season, for abrupt change without giving the digestive organs time to accommodate the change in diet, will cause diseases.

There is progressive lassitude of the body from the end of winter, which reaches its maximum in summer. The energy of the body progressively increases after summer and reaches its maximum in winter. This is due to atmospheric conditions which are changed with each season. The digestive organs share this organic activity in general with other organs, hence the necessity of taking foods of different tastes in each season.

*Vayu* which begins to be aggravated in summer reaches its maximum in rains and gradually subsides in autumn. *Pitta* which begins to be excited in rains reaches its maximum in autumn and diminishes in early winter. *Kapha* which begins to increase in late winter, reaches its maximum in spring, subsiding in summer. We may therefore summarise the *doshas* of each season as follows :—

Autumn—*Pitta* aggravates, *Kapha-Vayu* disappears.

Early Winter—*Pitta* disappears, *Kapha-Vayu* appears.

Late Winter—*Kapha-Vayu* are just a little affected.

Spring—*Kapha* in excess.

Summer—*Kapha* disappears, *Vayu-Pitta* appears.

Rains—All the three *doshas* are aggravated, specially *Vayu*.

It will thus be seen that the rainy season is the worst time in the year when health is more affected and diseases more rampant. A "dosha", which normally is aggravated in a season, if causes disease, is more amenable to treatment, than a "dosha" whose aggravation out of season causes disease.



Improper food and drink aggravate *dosha* in three ways :—

- (a) It aggravates the “dosha” of each season.
- (b) It           ,;                   ,,           of another season (previous)
- (c) It           ,,                   ,,           which appears earlier than its  
own season.

Thus “pitta” may be aggravated by improper food and drink in its own season (autumn), out of season (winter) earlier (rains).

It is therefore enjoined to take proper food for each season, to check Vayu particularly in rains, Pitta in autumn and Kapha in spring.

Foods are often of mixed taste, of which minute description is given against each. Six primary tastes are described as sweet, acid, saline, bitter, pungent and astringent. The secondary taste (combination of primary tastes) may be of 57 different kinds. A food may have a primary taste or a secondary taste.

Excess of astringent कषाय	..	aggravates Vayu
„ Pungent कटु	...	„ Pitta
„ Sweet मधुर	...	„ Kapha

A combination of

- Sweet, acid, saline—checks Vayu increases Kapha.
- „ Bitter, pungent, astringent—aggravates Vayu, checks Kapha.
- „ Sweet, bitter, astringent—checks pitta.
- acid, saline, pungent—aggravates pitta.

Again—

- Heat generating foods—checks Vayu-Kapha, increases Pitta.
- „ Cooling „ —increases „ checks „
- Soothing and heavy foods—checks vayu, increases kapha.

Again—

Acid, if taken, is increased in Rains	
Saline	„ Autumn
Sweet	„ Early winter
Bitter	„ Late winter
Astringent	„ Spring
Pungent	„ Summer.

Hence foods of the above taste should be avoided in those seasons respectively.



Modern western medicine has noted most of the above factors discussed under the three headings (Dinacharjya, Ritucharjya and Brahmacharjya) under the Laws of Hygiene, but not in such minutest details, which may be applied in individual cases differing according to different diathesis, so nicely. It may however be stated that *while modern medicine has given greater importance to public health, so admirably adapted to check epidemics of diseases, it has paid little attention to individual hygiene which will preserve health.* This is due to the difference in the the angle of vision of modern medicine from Ayurveda.

*Though Ayurveda gave greater attention to individual hygiene, ideas of public health are not wanting.* The rules for building houses in Bengal are stated as follows :—"Build your house with a tank on the east (to cool the heat of the sun), a bamboo grove in the west (to avoid the heat of setting sun), close the north (to avoid the north wind, very chilly in winter) and keep the south open (to enjoy the cool sea breeze in the evening and at night in summer). Such directions vary with locality.

Again "outbreaks of epidemics had been attributed to contrary seasons, to the floating of minute particles of poisonous flower pollens in the air (which induce, for example, hay asthma, as we now know), to mortality amongst rats and other burrowing animals which is increased before epidemic and associated with it (e.g., Plague), to unusual death amongst birds (e.g., malaria ?), to earthquake, famine, etc., due to magnetic disturbances of the Earth which are often precursors of devastating epidemics. Evacuation of a whole village is enjoined when an epidemic breaks out.

*The reason why public health was not given so much attention in Ayurveda is due, says Vhisagratna to the condition of the country in those days, quite distinct from what we find in our times.* These are summed up as follows :

(a) There were no free inter-communication between the different parts of the country, not to speak of the world. Imported diseases were absent and epidemics occurring locally did not spread to large areas.

(b) The natural drainage of the country was not obstructed by railway embankments, such a fruitful source of water-logging and malaria as recently announced by Dr. Bentley.

(c) There was no collection of a large number of population in big towns as we find now-a-days, which makes the subject of Public Health, so important in the present time.



(d) Each village was a republic supplying all its own needs and consisting of a small number of population living simply more as "children of nature". Inter-communication was thus further restricted.

(e) There was absence of artificialities and luxuries of modern civilisation along with its adulterated food, crowding and congestion, indoor life, often devoid of fresh air and sufficient light, dusty and smoky atmosphere and so on.

It may be noted that *the Indian mass at the present day, while they have forgot the beautiful precepts (for the observation of sound hygienic laws) of their forefathers are not sufficiently educated in western ways to absorb the laws of public health enjoined in modern western medicine.* The wholesale grafting of western ideas (without any consideration of the social, economic and other racial factors) of public health is not producing the results it did in the west.

The state of confusion induced by the influx of western civilisation in modern India, has been nicely described by Dr. Muthu, Superintendent, Mendips Hill Sanitarium in his book on Tuberculosis as follows:—

"In India, the contact of the east with the west has caused great social, economic, industrial, moral and spiritual upheavals, as witnessed in the growth of big towns and cities, the expansion of trade and commerce, the depopulation of villages, the decay of home industries, emigration into towns and commercial centres, high rent, dear adulterated food, overcrowding and insanitation, poverty and want, intemperance and degeneration. The dark races, the simple children of nature, blessed with indolent peace and absence of worry coming under such violent change of environment where the floodgates are open to all European vices, readily succumb to Alcohol, Syphilis and Tuberculosis".

Such is the effect of white civilization in the East.



# METALS IN AYURVEDA.

## GOLD AS A THERAPEUTIC AGENT

BY

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AND

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SYNONYMS IN SANSKRIT:—

सुवर्णं कणकं हेम हाटकंचैव काञ्चणम्  
चामाकरं शातकुम्भं तापनीय च रुक्मकम् ।  
जाम्बुनन्दं हिरण्यं च स्वर्णं च जातरुपकम् ॥

—Madan Pál.

NAMES IN DIFFERENT LANGUAGES:

HINDUSTHANESE :—*Sóná.*MAHARATTI :—*Sóné.*GUJRATI :—*Sónū.*CANARESE :—*Swarna.*TELEGU :—*Bagárang.*PERSIAN :—*Tita.*ARABIAN :—*Jahb.*LATIN :—*Aurum.*ENGLISH :—*Gold.*

CORRECTION OF GOLD BEFORE REDUCTION.

Pure gold leaf, free from any admixture of copper and silver or any other alloy should be used. Its colour should be deep red when exposed to heat and of saffron hue when rubbed on a touch stone.

There are various processes described for correction of gold some of which may be mentioned here :—

- (1) It is generally corrected by heating the gold leaves and cooling them alternately in Kanjika (fermented whey), oil, cow's urine, butter-milk and decoction of gram called (Kulattha)



- (2) Gold leaf 2 tolas and salt 2 tolas to be placed inside a covered crucible and heated for three hours in charcoal fire.

It may be surmised that this process of correction, most likely helps the reduction of gold.

#### REDUCTION OF GOLD ( स्वर्ण भक्षणम् )

Thin gold leaves which can be pierced by a thorn are the best for reduction.

There are several methods of killing gold for medicinal use amongst which the following may be described for the edification of our readers :—

- (1) शुद्ध समसूतं स्वर्णं खल्ले कृत्वा तु गोलकम्  
उर्द्धाधो गन्धकं दत्त्वा सर्व्वतुल्यं निरुध्य च ।  
त्रिंशद्वनोपलैर्द्दयात् पुटान्येवं चतुर्द्दश  
निरुत्य जायते भक्ष्यं गन्धोदेय पुनः पुनः ।

*Rasendrasārasangraham v. 126.*

“One part of each of gold and mercury are rubbed together into a mass with lemon juice and placed with two parts of sulphur below and above the mass, inside a covered crucible and exposed to heat with thirty cowdung cakes in the usual manner. This process is to be repeated 14 times till the gold is reduced to fine impalpable powder, which cannot be made to assume its original standard of gold by any process”.

- (2) स्वर्णस्य द्विगुणं सूतमन्त्रेण सह मर्द्दयेत्,  
तद्गोलकसमं गन्धं निदध्वादधरोत्तमम्,  
गोलकञ्च ततोरुद्धा शराव दृढानां पुटे,  
त्रिंशद्वनोपलैर्द्दयात् पुटान्येवं चतुर्द्दश,  
निरुत्य जायते भक्ष्यं गन्धोदेय पुनः पुनः ॥

“One part of gold leaf and two parts of mercury are rubbed together into a mass with lemon juice and placed in a crucible with three parts of sulphur covering the mass and exposed to heat with thirty cow-dung-cakes. This process of mixing the gold with mercury and exposing to heat with sulphur is to be repeated 14 times when



the gold is reduced to a dark brown impalpable powder, which can not be made to assume the shape of the mineral by any known process."

*Shranganadhara, Chap 12, v. 56,*

(3) "In killing the elephant of a metal, sulphur plays the part of a lion," says BHAIKABA in *Rasarnava Tantra* :—

नास्ति तल्लोहमातङ्गो यन्न गन्धककेशरो

निहन्ताद्गन्ध मात्रेण यदा मात्तिक-केशरो ।

(4) The tantric method of reducing gold is described in the same book. Before final preparation the following material called "*Vida*" should be got ready, which cuts short the repetition of the process of alternate rubbing and heating.

कासीसं सैन्धवं मात्तो सौवीरं व्योष-गन्धकं

सौवर्चलं व्योषका च मालतीरससम्भवः

शिशुमूलरसैः सिक्तोविडोऽयं सर्व्वजारणः ॥

*Rasarnava, IX. 2-3.*

"Kasisa (green vitriol), rock salt, the pyrites, sauvera (stibnite) the aggregate of three spices (round pepper, long pepper and dry ginger), Sulphur, salt petre, the expressed fresh juice of *mdlati* flower (eelites caryophyllata) all these moistened with the juice of the root of moringa pter, make a *vida* which would reduce all the metals."

Then the author proceeds to describe in detail the process of reduction of gold by the help of this *Vida*.

आशुरोटङ्गणञ्चैव नरसारस्तथैव च ।

कर्पूरस्त्रैव मात्तिकं समभागानि क्षारयेत् ।

सुहार्कं दुग्धे देवैश्चि सुषालेपन्तु कारयेत् ।

विडं चूर्णं ततो दत्त्वा कणकं जारयेत् प्रिये ॥

*Rasarnava Tantra, XI. 83-86.*

"Take equal parts each of saltpetre, green vitriol, sea-salt, rock salt, mustard borax, salamoniac, camphor, the pyrites, place in a covered crucible smeared beforehand with the milky juice of *Euphorbia Neriifolia* and *Asclepias gigantea* : than when the aforesaid *vida* is added the gold is killed."

(5) The following process is given by *Nityanātha* in *Rasaratnākara* :—"Rub gold-leaf with four times its weight of killed



mercury and sublime the mixture in a closed crucible. The gold is reduced on repeating the process eight times."

The following being the easiest of processes of reducing gold are now generally used by the modern Ayurvedic practitioners :—

(1) Take of gold leaf one tola and mercury one tola, mix and rub well till the mercury absorbs the gold leaf; then add sulphur two tolas and go on rubbing to prepare kajjali (black sulphide of mercury), till the mixture assumes the form of a black powder and the particles of mercury *disappear* altogether. Place the powder in a covered crucible and burn in cowdung cake fire in the usual way. This process repeated 14 times kills the gold effectively.

(2) Take of gold leaf one tola, mercury four tolas, sulphur 16 tolas, prepare Kajjali powder as described above and burn in the usual process.

#### SCIENTIFIC EXPLANATION OF THE ABOVE PROCESS OF REDUCTION.

First gold and mercury form an amalgam. Then mercury combines with sulphur producing sulphide of mercury (Kajjali), which by repeated roasting in a covered crucible sublimes to the underside of the cover of the crucible, while the powdered gold is left in the bottom of crucible.

Nowadays many Ayurvedic physicians do not prepare reduced gold separately. During the preparation of Makaradhwaja or *Swarna-sindura* the fine gold powder is left behind in the crucible, while Makaradhwaja sublimes upward. The gold is taken out and used as reduced gold, but it is not properly reduced and should not be used in medicines as the powder retains its metallic character unless the process is repeated a number of times.

#### CHEMICAL ANALYSIS OF REDUCED GOLD.

Reduced gold is nothing but fine powder of metallic gold, as is proved by the following tests :—

(1) Colour retains its characteristic yellow tint.

(2) On being rubbed on an agate mortar it produces a brilliant yellow stain—like that of massive gold when it is rubbed on a touchstone for ascertaining its purity.

(3) It is insoluble in nitric or hydrochloric acid, but dissolves in aqua regia (nitro-hydrochloric acid). In some specimens a trace of oxide of gold was also found.



## CHARACTER OF REDUCED GOLD.

*Colour* : Yellowish coloured powder ; when properly reduced it does not assume its original metallic character by any known process.

THERAPEUTIC VIRTUES—OPINIONS OF VARIOUS AUTHORITIES  
ON AYURVEDA.

सुवर्णं शीतलं वृण्यं बल्यं गुह्यं रसायणम् ।  
कान्तिकरं विषोन्माद त्रिदोष-ज्वर-शोषजित् ।  
कषायं तिक्तमधुरं सुवर्णं गुरुलेखनम् ॥

*Madan Pāl.*

"Gold is cooling, increases semen, induces strength, is hard to digest, is a Rasayana or rejuvenator, imparts lustre of beauty, astringent, bitter and sweet and is heavy. It is effective in poisoning, loss of equilibrium of *Vayu*, *Pittam* and *Kapham* in the system, fever and consumption."

The author of *Rasaratna Samucchaya* extols its virtues in insanity, in the following strain :—

आयुर्लक्ष्मो-प्रभाधो स्मृतिकरमखिलव्याधिविध्वंसि पूण्यं ।  
भूताविश-प्रशान्ति स्मरभर सुखदं सौख्य-पुष्टि-प्रकाशि ॥  
गाङ्गेयं चाथरुप्यं गदहरमजराकारि मेहापहारि ।  
चौणानानां पुष्टिकारि स्फुटमति करणं बीर्यवृद्धिप्रकारि ॥

"Gold increases longevity, induces luck, health, intelligence, memory and is a effective remedy in all diseases, free from any depressing after-effects, removes spirit-possession, (hysteria, epilepsy, etc.), increases sexual power, is nourishing, prevents senility, cures seminal diseases, is the best tonic for the weak, increases memory and is an aphrodisiac tonic.

Then again we find in the same book :—

स्निग्धं मेध्यं विषगदहरं हृन्मनवृषामग्रम्  
यक्ष्मोन्मादप्रशमनकरं देहरोग प्रमाथि ॥  
मेधा-बुद्धि-स्मृति-सुखकरं सर्वदोषामयघ्नं ।  
बच्चदौपि प्रशमितरुजं खादुपाकं सुवर्णम् ।

—*Rasaratnasamuchhaya.*



“Gold is cooling, nourishing, free from any bad after-effects, effective in poisoning, very nutritious, and possesses aphrodisiac virtues, cures consumption and insanity, invigorates intelligence, energy and memory, brings on happiness (by blessing the user with health and strength), removes all sorts of *Doshas* and diseases resultant thereof, is appetising, generates digestive power, a preventive of pain and sweet in reaction.”

GOPALBHATTA in his famous work *Rasendrasāra-Sangraha* speaks of gold as :—

कषायं तिक्तमधुरं सुवर्णं गुरुलेखनम् ।  
हृद्यं रसायणं बल्यं चक्षुष्यं कान्तिपं शुचिं ॥  
आयुर्मेधा वयः स्थैर्यं वाग्बुद्धि स्मृतिप्रदं ।  
क्षयोन्मादगरानाञ्च कुष्ठानां नाशनं परम् ॥

*Rasendrasārasangraha, V. 127.*

Here we find, besides the virtues enumerated before, that gold is recommended as हृद्य or heart tonic, useful in loos of eyesight and in Leprosy.

In *Uttaratantram*, *ASTANGAHRIDAYA*, in summarising the principal useful and effective remedies for diseases, *BAGBHAT* recommends the use of gold, particularly in poisoning :—*गरेषु हेमम्* ।

—*Astangahrīdaya, Uttaratantram, Chap. 40, V. 31.*

Gold should be properly corrected and reduced (killed) before use. The therapeutic value of reduced gold is thus described in the Sanskrit texts :—

एतद्भस्म सुवर्णजं कटुष्टोषितं द्विगुञ्जोष्मितं  
लोढं हन्ति नृणां क्षयाग्निसदनं श्वासञ्च कामारुचिम्,  
ओजो-धातु-विवर्द्धनं बलकरं पित्तामयधंसनं  
पथ्यं सर्ब्बविषापहं गरहरं दुष्टग्रहत्यादिनुत् ॥

—*Rasaratnasamūchhaya.*

“Reduced gold in doses of 4 grains taken with the powder of round pepper and clarified butter cures consumption, dyspepsia, chronic dysentery, asthma, cough, disinclination to food, jaundice, poisoning of all sorts and increases the semen and bone marrow and is the best nutritive food.”



At the same time gold which is not properly corrected and killed is condemned, for if used as a medicine, it produces many diseases and ultimately brings on death :—

बलञ्च वीर्यं हरते नराणां  
रोगव्रजं कीपयतीव काये ।  
असीद्यकारञ्च सदेव हेमा-  
पक्वं सदोषं मरणं करोति ॥

—*Rasarantasamuchhaya.*

#### THERAPEUTIC USES OF GOLD WITH THEIR ANUPANS :—

To be first well mixed and rubbed with honey and then administered:—

As a general tonic :— with lotus seeds, either fresh or dried in powder form.

(1) *As a general tonic.* Reduced gold is used in Ayurveda as a tonic and alternative. It is said to increase strength and beauty, to improve the intellect and memory, and to increase the sexual power. The well-known alterative tonic Makaradhwaja is prepared with gold.

Gold is also given to feeble infants a few days after birth with the hope that it will impart strength and beauty to the new born.

(2) *In loss of eye-sight* :—Juice of *Punarnava* (*Boerhaavia diffusa*).

(3) *In poisoning* :—Juice of *Nirbishi* (*Ayapan*—the sensitive plant).

(4) *In Insanity* arising out of disintegration of the functions of the *Doshas* :—Powder of dry ginger, round pepper and cloves.

(5) *As a rejuvenator* :—Butter, cream of milk or clarified butter.

(6) *As a builder and aphrodisiac* :—milk and 'sugar-candy powder.

(7) *In imparting the lustre of health* :— Saffron.

(8) *An an invigorator of memory* :—*Vacha* (the sweet flag).

(9) *As an alterative* :—Juice of *Bhringaraja* (trailing eclipta ; *wedelia calendulacea*).

(10) *Heart Disease* :—with milk and bark of *Arjuna* (*terminalia Arjun*) and cane sugar.

(11) *In burning sensation* :—bile of fish.

(12) *In Tuberculosis* :—with juice of *Ayápan* or juice of garlic or juice of *cactus grandiflorus*.

The use of gold in tuberculosis is also recommended by some modern western authorities :



In 1890 Koch showed that a salt of gold inhibited the growth of tubercle bacilli in a solution as weak as one in a million. In 1917 Felot and Spies introduced a preparation of gold named "Knysolgan" which was used in the treatment of tuberculosis. Recently Prof. Holger Moellgaard has a new inorganic compound of gold and sodium under the name of "sacrocrysin" which is said to materially check the growth of tubercle bacilli in a solution of one in a million and to arrest it completely in a solution of one in 100,000. Therapeutic doses of sacrocrysin given to a nontuberculosis animal had no ill effects, whereas the same doses given to tuberculous animals gave rise to all the relations that would be expected of a process entailing the wholesale destruction of tubercle bacilli in the tissues. This reaction is similar to and probably identical with the shock caused by large doses of tuberculin given to a tuberculous animal. This reaction could be avoided and overcome by an injection of serum obtained from a tuberculous animal which appear to neutralise the toxins generated by the interaction of sacrocrysin with tubercle bacillus in the body. In other words, passive immunity was conferred on the tuberculous animal which was thus protected from the otherwise fatal action of sacrocrysin.

In treating tuberculous patients with sacrocrysin the three principal reactions—fever, rash and albuminuria,—acted as guides to conduct of each case. The temperature in particular was a valuable index to the response of tuberculous body to the intervenous injection of sacrocrysin.

Serum from a tuberculous animal was given by intramuscular injection in doses of 20 to 40 cc.m and proved potent in counteracting the tuberculin shock caused by the sacrocrysin.

Sacrocrysin has been found to be a useful drug. It seems to be especially effective for the chronic fibrotic cases; areas of consolidation in the lungs clear up, rales disappear and certain patients have been able to return to work. The difficulties and dangers of the treatment however render it for the present at least suitable only for hospital practice.

That a definite cure for tuberculosis appears to be in sight is the conclusion reached in an important review in the March number of "*Medical Science*" by Dr. S. R. Douglas (Director of Bacteriology in the National Institute of Medical Research), of the Danish Professor Moellgaard's work, "The Chemotherapy of Tuberculosis."

Professor Moellgaard is a specialist who knows his subject thoroughly, and Dr. Douglas congratulates him "on his brilliant conception of neutralising the toxic effects of the organisms killed by the chemotherapeutic agent, by means of an antiserum." In non-technical language, a serum is injected into the blood to prepare it for digesting the dead tuberculosis bacilli. Either before or after the blood is thus prepared, a new substance, Sanocrysin, is injected in weak solution, Sanocrysin kills the bacilli; the serum eliminates the poisons which have been caused by the presence of the dead bacilli.

Sanocrysin according to the review, is a compound salt of gold and sodium. It is a solid snow-white substance composed of long needle-like crystals. Its activity is amazing. A solution of 1 in 100,000 kills the bacillus and of 1 in 1,000,000 prevents its growth.

Sanocrysin without the serum kills the bacilli, but it also kills the patient when it is tried on animals. But where its administration is combined with a



serum it has healed animals even when the case was an advanced one. With human beings in the Danish hospitals the results have been hopeful, though there have been some failures. It is expected that with further knowledge and with the preparation of a more efficient and powerful serum greater success may be achieved. At present the use of sanocrysin is only in its infancy, but good medical opinion holds that the world is on the eve of a discovery which will revolutionise treatment and perhaps exterminate tuberculosis.

### PREPARATIONS CONTAINING GOLD AS USED IN DIFFERENT DISEASES.

#### I. *In fevers : (Rasendrasarsangraha).*

- (1) Brihat Kasturibhairab Rasa (Nos. 1 & No. 2)
- (2) Sannipāta Suryya.
- (3) Brihat Sarbajwarahara Lauha.
- (4) Moharaja Bati.
- (5) Chintamoni Rasa.
- (6) Trailokshma Chintamoni Rasa.
- (7) Brihat Chintamoni Rasa (Nos. 1 & No. 2)
- (8) Putapaka Bishama Jwarantaka Lauha.
- (9) Brihat Bishama Jwarantaka Lauha.
- (10) Brihat Jwarantaka Lauha.
- (11) Chudamoni Rasa.
- (12) Bhanu Chudamoni Rasa.
- (13) Brihat Chudamoni Rasa.
- (14) Brihat Jwara Chudamoni Rasa.
- (15) Sree Joya Mangala Rasa.
- (16) Swarnasindura or Makaradhwaja.
- (17) Kanaka Sundara Rasa—*Sharangadhara*.

#### II. *Diarrhæa and Dysentery :—*

- (1) Bijoya Parpati—(*Rasendrasarsangraha*)
- (2) Swarna Parpati „
- (3) Bijoya Batika „
- (4) Grahani Bajrakapata „
- (5) Hiranyagarbha Pottali Rasa „
- (6) Sangraha Grahāṇikapata „
- (7) Moharaj Nripati Ballav Rasa „
- (8) Mrigankapottali Rasa—*Sharangadhara*.
- (9) Hemagarbhapottali Rasa „
- (10) Grahāṇikapata Rasa

#### III PILES :—

- (1) Tikshna Mukha Rasa—*Rasendrasarsangraha*.
- (2) Kanakasundara Rasa—*Rasaratnasamuchhyaya*.



## IV. INDIGESTION, DYSPEPSIA, ETC.

Kanakasundara Rasa—*Shārangadhara*.

## V. UDABARTA (tympanitis)

Badabanala Churna—*Rasaratnasamuchhya*.VI. STRANGURY :—(*Rasendrasanasangraha*)

- (1) Rambana Rasa
- (2) Raja Mriganka Rasa.
- (3) Basanta Kusumakara Rasa.

## VII. BIDRADHI (Abscess)

- (1) Trinetra—(*Rasaratnasamuchhya*)
- (2) Bārabānal Gutika „

## VIII. ABDOMINAL DROPSY :—

- (1) Kalabidhangsina—(*Rasaratna*)
- (2) Panchanan.

## IX. LEPROSY.

- (1) Kanakasundara—(*Rasaratna*)
- (2) Bajradhara Rasa „
- (3) Sarbeswara „
- (4) Sarbeswara Rasa—(*Shārangadhara*)

## X. NERVOUS DISEASES,—PARALYSIS ETC.)

- (1) Chatuhsudha Rasa—(*Rasaratna*)
- (2) Bārabanala Churna „
- (3) Probbabati Batika „
- (4) Sachhanda Bhairaba „
- (5) Brihat Batgajankusha „
- (6) Batnasana Rasa „
- (7) Batakantaka Rasa „
- (8) Chintamoni Rasa „
- (9) Chaturmukha Rasa „
- (10) Troilakshachintamoni Rasa
- (11) Jogendra Rasa (*Vaishajyaratnabali*)
- (12) Chintamoni Chaturmuka

## XI STERILITY

- (1) Joysundara (*Rasaratna*)
- (2) Bardhamana „
- (3) Druti Sara „
- (4) Ratnaprabha (*Vaishajyaratnabali*)



## XIII. Senility.

Kamala Bilash Rasa (*Rasaratna*)

## XIV APHRODISIAC :—

- (1) Kamadeva (*Rasaratna*)
- (2) Kasumayudha „
- (3) Sutendra „
- (4) Kamdhenu „
- (5) Amritarnava „
- (6) Madanasanjibana „
- (7) Pushpadhanya Rasa „
- (8) Rasendra Chudamoni „
- (9) Maheswara Rasa (*Rasendra*)
- (10) Hemasunder Rasa „
- (11) Brihat Purnachandra Rasa
- (12) Chandrodaya Rasa „
- (13) Makaradhwaja with gold
- (14) Basantakusumakara Rasa
- (15) Basanta Tilak „
- (16) Brihat Sringarabhra „
- (17) Madan Kambeva Rasa (*Sharangadhra*)
- (18) Kandarapasundara Rasa „

## XV. PHLEGMATIC COMPLAINTS.

- (1) Swarbeswar Rasa (*Rasendra*)
- (2) Sarbabhauma Rasa „
- (3) Nityodaya Rasa „
- (4) Mahalakshmilasharasa „

## XVI. HICCOUGH, ASTHMA.

Swaskasha Chintamoni (*Rasendra*)

## XVII. INSANITY, EPILEPSY ETC.

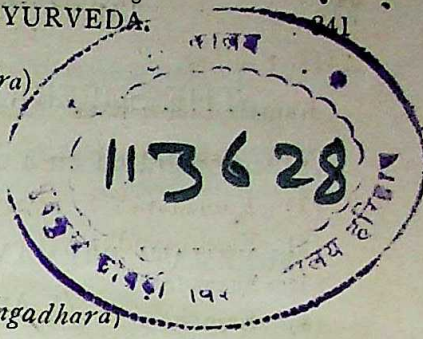
Chaturbhujia Rasa (*Rrsendra*)

## XVIII. CONSUMPTION.

- (1) Raja-Mriganka Rasa (*Rasendra*)
- (2) Mriganka Rasa
- (8) Ratnaprabhapottali Rasa „
- (4) Lokeswarpottali Rasa „
- (5) Kanakasundara Rasa „
- (6) Sarvangasundara Rasa „
- (7) Swalpa Mriganka „



- (8) Kanchanabhra (Rasendra)  
 (9) Brihat Kanchanabhra "  
 (10) Kumudasubarna Rasa "  
 (11) Brihat Chandramrita Rasa "  
 (12) Moha-Mriganka Rssa "  
 (13) Kshaya Keshari "  
 (14) Mrigankapottali Rasa (Sharangadhara)  
 (15) Hemagarbhapottali Rasa "



## XIX. DIABETES.

- (1) Brihat Somanath Rasa (Rasendra)  
 (2) Basanta Kusumakara Rasa "

## XX. COLIC.

- (1) Sarbangasundara "  
 (2) Trigunakshya Rasa "  
 (3) Trinetra Rasa (Soarangadhara)

## XXI. TUMOUR, CYSTIC GROWTHS ETC.

- (1) Bidyadhar Rasa (Rasendra)  
 (2) Sarbeswara Rasa "

## XXII. GONORRHOEA, POLYURIA, SPERMATORRHOEA ETC.

(DISEASES OF THE URETHRA).

- (1) Brihat Harishankar Rasa (Rasendra)  
 (2) Anandabhairaba Rasa "  
 (3) Bidyabagish Rasa "  
 (4) Brihat Bangeswara Rasa "  
 (5) Mehakeshari "

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## THE SUPERIORITY OF AYURVEDA

As demonstrated on a case of Spontaneous *Haemophilia*

By

SREEMATI PREMAVATI DEVI, VAIDYA VISHARADA,

 $\frac{2}{3}$  AYURVEDACHARYA,

Bareilly.

Those who are even now sceptic about the efficacy of Ayurvedic medicines may judge whether this indigenous system of treatment has not proved superior to others in obstinate and intractable cases like the following.

Parmeshwari Prasada, Hindu male child, aged 12 years, was suffering from spontaneous hæmophilia for about one year. To say nothing about the treatment, none of the medical practitioners far and wide had even seen such a case formerly.

The patient used to get paroxysmal attacks of bleeding and oozing or streaming of blood through the conjunctivæ, tear-papillæ, mucous membranes of the ears, nose, throat, gums, tongue, mouth, stomach (in vomits), bowels (in stools), bladder and urinary passages (in urine), and the skin of head, face, eyelids, external ears, neck, chest, abdomen, arms, legs, palms, soles, fingers and toes. The bleeding occurred at all the above-named sites except perhaps bowels and urinary organs, at a time at irregular intervals whether the patient was awake or asleep. It oozed or streamed through his mucus membranes and the pores of his skin like sweat, without giving rise to an apparent rupture on the external surface or ecchymoses and petichial spots. His capillaries had become fragile or over-permeable and his blood peculiarly fast in colour. The clothes and the skin stained with his blood did not discharge the scarlet red colour with soap and water. The washerman washed such clothes by his usual heating and steaming process some twenty times in the subsequent year, but the colour although rendered much fainter did not disappear completely. The blood did not seem to mix or dissolve in water. Its coagulation-time was lengthened very appreciably.

This patient had no affection in connection with his joints like other hæmophiliacs. There was no history or sign of any vene-



real disease acquired or hereditary. The Wassermann's test could not be performed, but anti-syphilitics produced no beneficial effect. Calcium lactate and hæmoplastin stopped bleeding temporarily in the beginning of the disease but afterwards proved to be of no avail.

In September 1923, some ten months after the commencement of bleeding, the boy began to get fits of unconsciousness with foaming of saliva from mouth and jerking of limbs resembling Epilepsy. The duration of every fit continued to increase gradually until it used to occupy half an hour. The number of such fits also went on increasing until it amounted to six every day. The boy was confined to bed in an extremely emaciated and debilitated condition. There was no pain or tenderness about his bleeding parts and surfaces, except a vague aching and heavy sensation in his chest now and then. The slight strain of occasional coughing, which was never forcible or excessive brought about bleeding from mouth, the blood discharged amounting to about two ounces at a time.

All sorts of medicines including the Vaidic ones had been tried on him by the medical practitioners of repute. Ultimately he was given up as hopeless and incurable.

On November 1923, he was handed over to me for treatment with Ayurvedic medicines. When I found his stomach extremely irritable and intolerant of medicine and water, I administered the Vaidic medicines per rectum as enema. I found no occasion for giving him any hypodermic or intravenous injection. Through God's grace the boy began to improve with the first dose, and in one week's time his fits of unconsciousness disappeared in a miraculous manner. In the following week, his bleeding also stopped permanently. He did not require medication any longer than two months. It is now more than one year since no recurrence of the complaints has been observed in him. The boy has not only gained in flesh and strength but has actually overgrown his sister, who was taller than him although younger in age by one year and a half.

Those who may have any doubts about any one of my statements are welcome to make enquiries of the patient's father, M. Jainti Prasad Ashthana, Peshkar, Collectorate, Bareilly.



*Treatment.*— The line of treatment adopted in this case was पित्ताहतवातविधिः and had to surmount the difficulties which run as follows :—

1. The medicines likely to control his bleeding aggravated his epileptiform fits in severity, number and duration, on account of increased congestion and irritation of his brain ; whereas the remedies suitable for his convulsive fits increased his external hæmorrhage.

2. The patient could not afford to lose blood any more and in case the external hæmorrhage were checked abruptly, there was grave danger of increased tension and internal hæmorrhage occurring in the meninges of the brain with paralysis and even loss of life.

3. Erroneous and misleading texts have crept in the tests of healthy blood and its differences from the vitiated one in some of the standard works on Ayurvedic medicine. Sushruta writes in his Chikitsa-sthanam, Adhyaya 34—

जीवशोणितरक्तपित्तयोश्च जिज्ञासार्थं तस्मिन् पित्तुघ्नोत्तं वा क्षिपेत् ।

यद्युक्लृणोदकप्रक्षालितमपि वस्त्रं रञ्जयति तज्जीशोणितमवगन्तव्यम् ॥

That Sushruta means pure and wholesome blood from जीवशोणित or जीवशोणित is evident from the following, in his Sutrasthanam, Adhyaya 14—

देहस्यरुधिरं मूलं रुधिरैव धार्यते ।

तस्मात् यस्मिन् संरक्ष्य रक्तं जीव इति स्थितिः ॥

The same error is found in Ashtanga Sangraha, Sutrasthanam, Adhyaya 36—

नन्वाम्बुशरीरमाहारभूतं रसाख्यमविकृतमविकृतेन तेजसा रञ्जित-  
मिन्द्रगोपाकारं च.....धीतं च विरज्यमानं प्रकृत्या रक्तमाहुः ।

Contradictory to these, one finds reliable texts in Charaka and Astanga Hridayam. Charaka in his Siddhistanam, Adhyaya 6 writes :—

अतितोष्णं मृदौ कोष्ठे लघुदोषस्य भेषजम् ।

दोषान् हत्वा विनिर्मथ्य जीवं हरति शोणितम् ॥ ४०

\* \* \* \* \*

शुक्लं वा भावितं वस्त्रमाधानं कोष्णवारिणा ।

प्रक्षालितं विवर्णं चेत् पित्तं शुद्धन्तु शोणितम् ॥ ४१ ॥



and Vagbhata in his Ashtanga Hridayam, Kalpasthanam, Adhyaya 3, writes the following :—

अतियोगाच्च भैषज्यं जीव' हरति शोणितम् ।

तज्जीवादानमित्युक्तमादत्ते जीवितं यतः ॥

\* \* \* \* \*

शुक्त वा भावितं वस्त्रमाधानं कोष्णवारिणा

प्रक्षालितं विवर्णं स्यात् पित्ते शुद्धन्तु शोणिते ॥ १८ ॥

The less intelligent Ayurvedic physicians could not glean the truth from contradictory statements, and could not discern the proper needs of the patient as regards the stopping and continuing the loss of his blood.

4. The patient's nerves were so very sensitive during the first week of his treatment under me that even the sight of an ugly medicine (e. g., black pill) excited nausea and vomiting with further loss of blood and energy.

5. According to Charaka and Sushruta, a case of *Raktapitta* and *Apasmara* like the one under consideration, is considered hopeless and incurable.

यत्क्षणमथवा नीलं यद्वा शक्रधनुःप्रभम् ।

रक्तपित्तमसाध्यं तद्वाससोरञ्जनं च यत् ॥

( चरक, निदानस्थानम् अः २ । )

यदा तु सर्वक्लिद्रोभ्यो रोमकूपेभ्य एव च ।

वर्तते तामसंखेयां गतिं तस्या दुरन्तिकीम् ॥

( चरक, चिकि०-स्था० अः ४ )

खेभ्यः सरोमकूपेभ्यो यस्य रक्तं प्रवर्तते ।

पुरुषस्याविषार्तस्य सद्योजह्यात्स जीवितम् ॥

( सुश्रुत, सु०-स्थान, अः ३१ )

वद्दुशोऽपस्मरञ्जन्तुः प्रक्षीणं चलितभ्रुवम् ।

नेत्राभ्याञ्च विकुर्वाणमपस्मारो विनाशयेत् ॥

( सुश्रुत, सु०-स्था०, अः ३३ )

### Details of Treatment.

#### 1. DIET :—

When the boy came under my treatment, he was being given no diet but milk. Salt had been excluded from his dietary for the preceding nine months. I gave him a fair allowance of rock-salt in the soup of *mudga* (or *adhaki* with a little tamarind), the best quality of old *hansraj* rice, and *mudga* pulse and rice mixed and cooked together as *Khichri*, milk and *Kshira* (pudding)



of milk and मखानम् (butter) sweetened with sugar were also given. Among fruits he was given मोलणौ द्राचा, munakka (dried grapes), sweet pomegranate, green cocoanut and its water enclosed within it. Among green vegetables, he was given बास्तुकशकम् and तण्डुलीय शकम् in moderation. Pea soup was allowed as well, but it did not suit the patient as it tended to induce flatulence. Some 3 or 4 days after the cessation of fits, he was given other articles as well cautiously.

## 2. MEDICINES.—

A few minutes before food, he was given powdered Pippali  $\frac{1}{2}$  to 1 masha with honey for one month. Sometimes a little Hingnadi churna with the sour juice of dadimi (pomegranate) was also allowed with meals.

एलादिबटी as described and enjoined by Charaka under चतुर्चौष चिकित्सा was tried on the first day but was discontinued as useless. He was then given चतुर्जात infusion followed half an hour afterwards with गिरिजारसबटी three times a day, in alternation with the decoction of the following :—धन्याकम्, जशीरम्, गुडूची, निस्त्वक्, रक्तचन्दनम्, दुरालभा, पर्पटकम्, पद्मकम्, sweetened with honey every time, three times a day. Slight modifications were made in the composition of the decoction as occasions demanded.

Once or twice a day, he was also given मय्य (thick beverage) of द्राचा, धात्रीफलम् and शर्करा during the first week.

After the 1st week he was given लोधचूर्णम् and शर्णम् with milk or water every evening. This was continued for two months. When digestion and appetite had improved in the first week, he was given an अक्षतेह of काकोली, चीरकाकोली, शतावरी, ब्राह्मी, पिप्पली, गोदुग्धम्, घृतम् and शर्करा about 1 tola each time, once or twice a day.

Whenever his stools hardened, suitable combinations of 2 or 3 of the following were given :—एलावालुकम्, विश्वभेषजम्, चतुरंगुलम्, हरीतकी, द्राचा and लिङ्गता ।

Once in the course of treatment when persistent vomiting and bleeding could not be checked, he was given an enema of the following per rectum :—चतुरंगुलम्, जशीरम्, सुप्ता, राक्षा, मधुकम्, कलिङ्गका, गोदुग्धम्, एरण्डतैलम् and मधु । The quantity of this enema was eight chhataks.

The infusion of *chaturjata*, the decoction of the medicines enumerated above, *Girija-rasa-vati* and the evening powders of *lodhra* and *bála* were continued for some two months.



## PURGATIVES IN AYURVEDA

By

KAMALAKANTA SHARMA

Of all the purgative drugs described in Ayurveda we find (1) the roots of the red variety of *Trivrita* (*Teuri*—*Ipomœa turpethum*), (2) the bark of the red variety of *Lodhra* (called *Pattika Lodhra*—*Symplocos racemosa*), (3) the fruit called *Haritaki* (Chebulic Myrobalan,) (4) the oil of castor seeds, (5) the fresh expressed juice of *Karala* leaves (Hairy Mordica), (6) the milky exudation of the *Sudha* plant leaves (*Manasā Shij*—*Euphorbia Neriifolia*) are considered as the most effective and here we shall describe the methods of their administration.

### USES OF TEURI (TRIVRIT) AS A PURGATIVE IN DIFFERENT CONDITIONS.

Select only the full grown, fresh and healthy roots, soak them in the expressed juice of the purgative drugs described above, and then dry and powder them. Take a dose of this powder, mix with a sufficiently large quantity of rock salt and pulverised dry ginger and administer with either sour rice gruel or curd. This *Yoga* (mixture) will prove effective in constipation due to the disintegration of *Vayu* in the system.

The above powder, when administered mixed with (1) sugar or treacle (obtained from sugarcane juice) or (2) with decoction of the drugs called *Kākalyādi Gana* (*Madhurādi Group*—Saccharine drugs—beginning with *Kākoli*—*Gymnema Balsimicum*) or (3) with milk acts effectively in constipation attended with the derangement of *Pitta* in the system.

In constipation attended with the derangement of *Kapham* in the system the same powder should be administered with either (1) expressed juice of *Guduchi* (*Tinospora Cordifolia*) or (2) expressed juice of *Arista* (*Neem*, *Azadirachta Indica*) or (3) the decoction of *Trifala* (the three Myrobalans) or (4) the pulverised *Byosha* (ओष) (*Trikatu* : Dry ginger, long pepper and round pepper).



IN CONSTIPATION OR DISEASES DUE TO THE DERANGEMENT OF  
VAYU AND KAPHAM :

R/

(1)

Trivrit powder	...	...	1 part
दारुचिनि—Cinnamon powder			
तेजपत्र—Leaf of Laurus Cassia			
एलाइच—Cardamom			
शुण्ठी—Dry Ginger			
पिपली—Long Pepper			
मरीच—Round Pepper			
and Old Treacle			

All combined in equal  
doses one part.

Mix well and administer.

R/

(2) Decoction of Trivrit	...	...	4 seers.
Pulverised roots of „	...	...	$\frac{1}{2}$ „
Rock salt	...	...	2 tolas.
Dry ginger powder	...	...	2 „

Mix and boil, till reduced to the consistency of a thick gruel and then administer. The dose should be determined by the attending physician to suit the condition of the subject.

R/

3. Pulverised Teuri roots	...	...	1 part
„ Dry ginger	...	...	$\frac{1}{2}$ „
„ rock salt	...	...	$\frac{1}{2}$ „

Mix with cow's urine and administer.

PURGATIVE FOR GENERAL USE.

4. Pulverised Trivrit root	...	1 part
„ Dry ginger	...	1 „
„ Chebulic Myrobalan	1	„
„ Betel nut		ā.ā.
„ Baberang seeds		„
„ Round pepper		„
„ Cedrus deodara wood		„

Mix well and administer in proper doses with pulverised rock salt and cow's urine.

It is advised (1) to pulverise the purgative drugs in proper proportions and then to mix them well and rub with their expressed juice



or decoction and then to make them up into pills of the required doses ; or (2) to mix them with clarified butter in the form of a confection and administer in proper doses, or (3) to prepare a confection of the pulverised drugs with boiled treacle (treacle—one part, powder  $\frac{1}{2}$  part); when cool, powder of cinnamon, cardamom and leaf of lorous cassia should be mixed and the resulting confection kept aside in a well covered vessel, to be administered in indicated doses whenever necessary.

4. Take one part of any of the purgative drugs, spoken of above—mix with four parts of decoction or fresh expressed juice of the same drug and boil in gentle fire ; at the same time one part of powdered wheat flour should be steamed in the fumes of a separate quantity of a similar boiling decoction or juice, and when ready should be rubbed with a quantity of clarified butter and again mixed and boiled with the same decoction. A quantity of treacle should then be boiled in a separate vessel and when ready, the decoction-treated flour and pulverized purgative drugs should be mixed with it and when the mixture assumes the form of a confection, the vessel should be taken out of the fire and allowed to cool. This confection or "*Modaka*" should be mixed with aromatic drugs and then administered in proper doses.

#### PURGATIVES PREPARED AND ADMINISTERED AS FOOD.

*Mudga* (Moong pulse) boiled in the decoction of purgative drugs, and then administered with the addition of rock salt and clarified butter, acts well as a good purgative. Soups of Masura and other pulses may be prepared in the same way and administered as a purgative.

Emetic drugs may be prepared with pulses in the same way and administered in the form of soups whenever occasion arises.

#### A RELISHING PURGATIVE FOR PITTAJA CONSTIPATION (ARISING OUT OF DERANGEMENT OF PITTA.)

Cut a portion of sugar cane longitudinally and place pulverized white *Triurrit* root inside and cover in the usual process of *Putapāk* (closed crucible). Tie up well with *Kusha* grass (*Pōany cynosurides*) and cover with a coating of clay, and burn in° gentle cow-dung-cake fire. When well roasted and cooled, squeeze out the juice and administer. It acts as a cooling purgative to the patient.



# PURGATIVE FOR FEVER CASES WITH EXTREME THIRST AND BURNING SENSATION.

R/

Sugar

Pulverised धनयमिन (Seseli Indicum, Beng. *Rāndhuni*, Sans.

*Ajāmodī*)

„ Bamboo Manna

„ मूत्रकुशाण्ड (*Batatas Paniculata*)

„ Trivrit ā. ā.

Mix well with clarified butter and honey and administer in the required doses.

## A MILD PURGATIVE FOR DELICATE PEOPLE.

Trivrit powder one part

Cardamom „ ½ „

Leaves of

Lourus Cassia ½ „

Round pepper ½ „

Mix with honey and sugar in adequate quantity and administer.

## ANOTHER PURGATIVE IN PITYAJA CONSTIPATION.

Sugar 8 tolas

Honey 16 „

Boil in gentle fire and when the mixture assumes the required consistency, add to it 6 tolas of *Trivrit* powder and when well mixed, take out of fire. To be administered when cool.

*N. B.* —Honey when heated in fire is an incompatible combination, but on this special occasion it will not cause any injury, because a purgative when administered internally does not remain sufficiently long in the stomach or intestines to give rise to any untoward effect.

## AN EFFECTIVE PURGATIVE IN CONSTIPATION OF KAPHAJA TYPE.

R/

Pulverized Trivrit

„ इडदारक (*Gmrelina Asiatica*)

„ यवचार (*Carbonate of Potash*)

„ Dried ginger

„ Long pepper

Mix well with honey and administer.

(To be continued).



## Reviews & Notices of Books.

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### Organotherapy in General Practice :—

Published by G. W. Carnrick Co., 417—421, Canal St., New-york City. Price \$ 2. Can be had of the publishers or from Messrs. Muller & Phipps, 14, Greene, St., Bombay.

“Organotherapy” is a subject which has grown in importance since the last few years and it may now be safely said with all emphasis that the endocrines are functionally basic to all principles of physiology. In order to be a successful and up-to-date practitioner, whether as a surgeon or a physician, one must have fuller knowledge of organotherapy. The present volume is a condensed summary of all available knowledge on the subject, placed before the readers in a forcible and effective way, and as such it will be of considerable value to medical men of all classes.

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## CORRESPONDENCE.

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To

THE EDITOR,

JOURNAL OF AYURVEDA,

CALCUTTA.

SIR,

I should like to make a few remarks about the article “Rabies in Ayurveda” by Kaviraj Shibnath Sen which appears in the February number of the Journal of Ayurveda.

In the article the following paragraph appears :—

“ I earnestly request workers in Pasteur Institutes and other medical men who happen to read this article to be on the look out if they ever get a cause of Idiopathic Hydrophobia, where no history of any bite within a period of two or three years or more can be reasonably traced”.

The reason for this request is that Susruta was of the opinion that sometimes, though rarely, a man who has never been bitten or even licked by an animal gets the disease and dies from it.



I may state that all the Pasteur Institutes in the world for the last 35 years have been on the look out for such a case but so far not a single authentic one has been published. Susruta in this particular matter was probably mistaken in his diagnosis. Anyway the very rarity of the occurrence would make it of small importance. The important point is that death from the symptom-complex called Hydrophobia never, so far as we have experience, occurs except after infection by some means with the virus of rabies, generally by the bite of a rabid dog.

It is quite true, as the Kaviraj says, that Western medicine is not able to determine whether a person bitten by a rabid animal will develop hydrophobia or not. There are three points to be considered in this connexion :—

- (1) The saliva of the biting animal may not be in an infective condition for man at the time of the bite.
- (2) Too small a dose of the virus to cause infection may be introduced.
- (3) The natural defences of the person bitten may suffice to destroy the virus.

Western medicine has no means of deciding whether one or more of the above conditions is responsible for the escape from Hydrophobia of a person bitten by a rabid animal.

The Kaviraj hints that Susruta has described a method by means of which it may be ascertained whether a person bitten by a rabid animal has been infected or not and that there is a drug which will destroy the virus which has been introduced by the bite and thereby avert the outbreak of hydrophobia and the inevitable death of the person bitten.

He goes on to say that "if the method can be well formulated and tabulated it will be a treasure". Quite so; all will agree not that it will be, but that it may be, a treasure. It is quite useless however to write this sort of thing and leave the tabulation and formulation alone.

As the Kaviraj has made this announcement it seems to me that it is his duty to the medical world forthwith to explain exactly what the method is so that it may be tested and adopted if it shall be proved to be of worth. He will then have deserved the thanks of numberless people who at present prefer to undergo a troublesome treatment to taking the risk of dying from hydrophobia because no one can tell them whether their lives are at risk or not.

Yours Faithfully,  
R. CORNWALL.

LIEUT.-COL., I.M.S.,  
*Director, Pasteur Institute, Coonoor.*



## शरीर परिभाषा ।

## ANATOMICAL NOMENCLATURE

BY

MAHAMAHOPADHYAYA KAVIRAJ GANANATH SEN,

SARASWATI, M.A., L.M.S

(Author of प्रत्यक्षशरीरम्—Text Book of Human Anatomy in Sanskrit.)  
(Continued from the last issue).

## GENERAL TERMS—(Osteology).

## अस्थिशरीर ( साधारण संज्ञा ) ।

[Terms marked with an asterisk (\*) occur widely in  
Ayurvedic Literature].

## Trunk—Bones of (58)

Hyoid bone (1)	...	कण्ठिकास्थि
Clavicle (2)	...	अक्षिकास्थि *
Scapulae (2)	...	अक्षफलक *
Spine	...	पृष्ठवंश *

## Vertebrae (24)

Cervical (7)	...	कशेरुका *
Dorsal (12)	...	शोवा-कशेरुका
Lumbar (5)	...	पृष्ठ-कशेरुका
Sacrum (1)	...	कटि-कशेरुका
Coccyx (1)	...	विकास्थि *
	...	अनुविकास्थि

## Os. Innominatum (2)

Sternum	...	श्रोणिफलकास्थि
Ribs (24)	...	उरोस्थि, डरःफलक
	...	पशुकास्थि

## Upper Extremity—Bones of

Humerus	...	ऊर्ध्वशाखास्थि
Ulna	...	प्रगण्डास्थि
Radius	...	अन्तः-प्रकोष्ठास्थि
Carpal bones (8)	...	बहिः-प्रकोष्ठास्थि
Scaphoid	...	करकूर्चास्थि, करतलाकाधिष्ठान *
Semilunar	...	नौनिम
Cuneiform	...	अर्द्धचन्द्र
	...	उपलक्ष



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# THE JOURNAL OF AYURVEDA

Vol. 1, ]

June, 1925.

NO. 12.

## THE TRIDOSHA THEORY.

—o—

### A MESSAGE OF HOPE

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## THE TRIDOSHA THEORY.

—o—

If at all Ayurveda has to play an important part in the future of Modern Medicine, it can be in only one way. It is by a scientific study of Ayurveda, to know how far the theories and practices of Ayurveda advance the modern knowledge and practice of the healing art. Science is quite independent of race feeling, and is above all considerations of bias and conservatism. It stands on the firm basis of eternal truth and inherent worth. We would not demand attention to Ayurveda on the plea of its divine inspiration, but we consider it deserving of due consideration as a store-house of knowledge bequeathed by the great thinkers and observers of yore, who laid the foundation of their science and art on truths arrived at either by intuition or by observation. Considerations of personal gain were not springs of action in their case. They were moved by genuine compassion for humanity. The clinical descriptions and theories of Hippocrates barely stand the scrutiny of modern scientific tests, but Ayurveda can give a fresh stimulus to the investigation of diseases in its ætiology and treatment. It does great credit to the ancient sages who worked without modern paraphernalia that their theories and practices hold their own even to this day. There can be little doubt that the ancient sages were great observers and profound thinkers. A hypothesis is a generalised terse statement which covers some of the observed facts; when it explains all the observed facts it becomes a theory. The *Tridosha Theory* of Ayurveda is believed to be capable of explaining all



observed facts with regard to the symptomatology, diagnosis and treatment, of all diseases that human flesh is heir to. Now the reasonable contention would be that this theory must stand the modern tests or there must be some alternative theory or theories to explain all the facts. The question would naturally arise, what will be the fate of the bacteriological theory if "*Tridosha*" theory is found to be correct. Another difficulty would arise as to whether Endocrinology is compatible with the "*Tridosha*" theory.

To have a clear insight into the subject, we have to consider first the causation of disease, which depends primarily on two main factors besides some auxiliary ones:—(1) the nature of the invading organism, and (2) susceptibility of the subject (vitality of the system invaded).

Modern Western Medicine would contend that the nature of the invading organism, how it grows and how it is transmitted, is of great importance in determining the causation of disease. Bereft of this knowledge we will be groping in the dark, especially while considering the causation of the epidemics, we ought to know how to stop their extension and how to prevent their recurrence. In short, the progress of preventive medicine stops short without the aid of Bacteriology and Parasitology. This, of course, leaves out the deficiency diseases or diseases of the metabolism and a few other diseases caused by errors in diet, etc. How then can the Ayurvedic theory of "*Tridosha*" help us in Preventive Medicine and Public Health questions? Our answer is that Ayurveda may help us much even in this way, if we can understand its deep philosophy and follow its principles of personal and preventive hygiene. Leave alone the treatment of diseases; the creation of a healthy mind in a healthy body is considered as the most important object in view by the Ayurvedist. He believes that this



alone can give immunity to invasion by extraneous organism giving rise to diseased conditions.

When we consider the question of susceptibility of the individual in modern medicine, we find our progress checked abruptly. When once the invading organism has gained a foothold, we are at a loss how to deal with it. The protective functions of the body, what people call the defences of nature, work in their own way (but how, we do not know fully) and cure many of the diseases. There are specific cures in modern medicine for about 12 to 15 diseases. But how to deal with the others? Modern medicine leaves the rest to Nature giving symptomatic treatment. In this fix, we should turn to Ayurveda, which tries to explain the workings of these protective functions. It is contended in Ayurveda that so long as these functions are kept up in their normal condition, the invading organisms are powerless to act. It is but too true. Tuberculosis is a great example illustrating the point. But it is inconceivable that all people will keep up to their proper diet, conduct and environment. Such an ideal state of thing has not been possible till now under the sun and so there are always individuals who become susceptible in every community.

In the West, with the improved sanitary conditions, water-supply and model dwellings, etc., certain improvements in the health of the nation have been effected. But there are far greater evils in alcohol, overwork, mental worry, godlessness, sudden variations in climatic conditions, social indulgences, etc., which are beyond the control of Nature or Government established by the people. These conditions lower the resistance and increase the susceptibility.

In the East, the conditions have been different until lately. There was less of over-work and worry in former times but the present struggle for existence and change in surroundings aided by impure water, scarcity of food



and water bad sanitation, squalor and poverty, early marriages, neglect of physical culture, the present methods of close school education, all increase the susceptibility of the people and lower their vitality. No wonder then that malaria, influenza, cholera, plague, etc., carry their usual tolls. So the question of susceptibility of the individuals in a community can not be shelved any longer and the remedy must be sought in fields not yet explored.

Now, can you control or guard against these invasions unless you are well acquainted with the protective functions of Nature? In modern medicine Immunology attempts to study these functions. It is here we find that Ayurveda excels Western Medicine. The ancient authors knew the existence of micro-organisms. Reading about Leprosy and Skin Diseases we find in *Sushruta* and *Bagbhata* a mention of the causative agents as small organisms invisible to the naked eyes, round and copper coloured, etc. They are said to circulate in the blood. In speaking of contagious diseases, *Sushruta* said, "They may be carried by the breath of an infected person ; by the clothes, by contact, by eating from the same dishes, by even wearing the flowers used or worn by the patient" Leprosy fevers and consumption are stated to be transmitted in these ways

Now if Ayurveda can contribute to the progress of Medicine in enabling us to understand the protective functions of the body, how does it do this? Here we find that Ayurveda assumed the existence of the three Doshas or principles. To call them humours will be a misnomer, To call them humours will limit their nature and application in the light of modern science. So it would not be wrong if we retain the word "Doshas" which include both physiological and pathological functions. Physiological, as they have to carry on the normal metabolic, excretory, digestive, nervous and circulatory processes, etc., and pathological, when one or more of them being in excess or



diminished or in an unnatural combination give rise to diseased conditions. The resulting disease is due to the irregularity of the Doshas which reduces the resisting capacity of the body. The idea is that if we set right the Doshas and bring them to their normal proportions, the disease will be cured. On this fundamental theory which is quite practical in as much as it deals with the properties of drugs in their action on the Doshas, Ayurveda gives the symptoms of the Dosha or Doshas deranged, by which we may find the particular derangement and treat accordingly. In modern science, diseases are named according to the causative agent as Leishmaniasis, Filariasis, but the authors of Ayurveda take the most prominent symptom and name the diseases by the symptom group and sub-divide them according to the particular Doshas usually deranged.

Now, if we want to take advantage of Ayurveda in the advancement of science we must know the nature of the *Doshas* and must go into a detailed study of the functions of these *Doshas*, first physiological and then pathological. No sane man would contend that modern science is all perfection so let us arrive at a clue by a study of Ayurveda.

A systematic study and a brief presentment of this subject has been written by the Hon'y. Editor-in-Chief of this Journal and the first instalment of it appears elsewhere in this issue. We hope they will be studied with keen interest.

A C. B.

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We take pleasure in announcing with thanks that the Government of Madras Local Self Government Department have sanctioned the purchase of the **Journal of Ayurveda** for the Indian School of Medicine.



## Original Articles.

### THE THEORY OF TRIDOSHA OR TRIDHATU

BY

MAHAMAHOPADHYAYA KAVIRAJ

GANANATH SEN, SARASWATI, M.A., L. M. S.

As the foundation of Ayurveda rests on this theory, I would endeavour, first of all, to explain the terms Vayu, Pitta and Kapha, as understood by Ayurvedic writers of old and then to explain the theory.

#### *The Meaning of Tridôsha or Tridhātu.*

The Ayurvedist believes that all physiological functions are controlled by three principles which are, strictly speaking, called *Dhātus* when they are normal, and *Dôshas* when they are abnormal, the last expression being often used in a general sense.

*Vāyu* or life-force [from *Vā* (वा) to move]—The first of these, *Vāyu*, is the motive or dynamic principle, which causes the various visible and invisible motions in the body. It is born with the first cell which when impregnated begins to divide into many cells and becomes gradually organised through the differentiation of the cells into different structures. It creates blood-vessels, lymphatics and nerves and pervades the complex organism. This inherent cell-force manifests itself later on in the higher evolution known as nerve-force. But this nerve-force is not the whole connotation of *Vāyu* as some people understand. It is the differentiated or more crystalized form, as it were of *Vāyu* and is manifest only in higher forms of life. But the cell-energy persists in every cell. A man, for instance, grows a tumour. It becomes gradually organised; blood vessels and nerves and lymphatics grow into it. Gradually if it comes in contact with hard substances, a horny growth takes place on it. Who guides all these growths? It is this life-force or cell-force, called *Vāyu*. (Cf. Greek *Bios* meaning life, as in Biology). This explanation

1. "उत्साहोक्त्वा नश्चासदृष्टा धातुगतिः समा ।

समो मोक्षो गतिमतां बायोः कर्माद्विकारजम् ॥"—Charaka, *Sutrasthanam*,



is not my own invention. *Vāyu*, according to Charaka Samhita is 'the force that moves and holds all the functions of the body in equilibrium, "that manifests itself in different nerve-centres that "carry sensation and motion, that control the digestion, the "circulation and the glandular and excretory activities. It causes the "differentiation of parts in foetal development. Its action manifests "itself also in the processes of intellection and feeling."² Thus it has been rightly said that "Vayu guides all functions pertaining to Pitta and Kapha, which are 'lame' without its lead".³ Such a conception of Vayu is not incompatible with the teachings of modern physiology'

*Pitta—The Consuming or Metabolic Principle.*

Pitta is the second principle. It is the principle which manifests itself in different forms in different chemical activities, mainly in alimentary digestion and general metabolism. Through certain chemical changes in the ingested food and in the tissues it helps the absorption and metabolism of the nourishment that is available to the body. As a result of this, it keeps up the equilibrium of heat in the body. It is therefore sometimes called "Agni (अग्नि) or fire."⁴ It occurs in a subtle imperceptible form, and in a crude form. The subtle form manifests itself in the various crude forms, e.g. secretions like gastric juice, bile, pancreatic juice, etc., and helps the digestion in and absorption from the alimentary tract. This is called "*Kaya-agni*" (कायाग्नि) or "*Jatharagni*" (जठराग्नि)—"the Alimentary Fire". There is another form of diges-

2. वायुस्तन्यन्तधरः, प्राणोदानसमानव्यानापानात्मा, प्रवर्त्तकश्चेष्टानामुच्चावधानां, नियन्ता प्रणेता च मनसः, सर्वेन्द्रियाणामुद्योजकः, सर्वेन्द्रियार्थानामभिवोदा, सर्वशरीरधातुव्यूहकरः, सम्भानकरः शरीरस्य, प्रवर्त्तको वाचः, प्रकृतिः स्पर्शशब्दयोः, श्रोतस्पर्शनयोर्मूलम्, हर्षोत्साहयोर्गन्धः, समोरणोऽग्निर्दोषसंशोषणः क्षेमा बहिर्मलानां स्थूलाणुस्त्रोतसां भेत्ता, 'कर्त्तागर्भाकृतीनां, आयुषोऽनुवृत्तिप्रत्तायभृती भवत्यकुपितः ॥—*Charaka, Sutrasthanam, Ch. XII, 8.*
3. पित्तं पङ्कः कफः पङ्कः पङ्कवो मलधातवः ।  
वायुना यत्र नीयन्ते तत्र वर्षन्ति मेघवत् ॥—*Sharangadhar, Pt. I. Ch. V. 22.*
4. अग्निरेव शरीरे पित्तान्तर्गतः कुपिताकुपितः शमायुभानि करोति, तदयथा—पक्तिमपक्तिं दर्शनमदर्शनं मावाभावत्वमूष्मणः प्रकृति-विकृतिवर्णौ शैथ्यं भयं क्रोधं हर्षं मोहं प्रसादमित्येवसादीनि चापराणि हन्दादीणि ।—*Charaka, Sutrasthanam, Chapter XV, 15. Vide also Sushruta, Chapter XV.*
5. जाठरो भगवानग्निरौश्रोन्नस्य पाचकः ।  
सौक्ष्मद्रसानादानो विवेक्तुः नैव शक्यते ॥—*Sushruta, Sutrasthanam, Ch. XXXV, 24.*



tion—the metabolism in the tissues which is carried on by the subtle form known as the *Dhatwagni* (धातुग्नि) or “the tissue fire.”<sup>6</sup> On the mental side, another form of the subtle substance (साधकपित्त) is said to circulate in the blood (as internal secretion?) and to influence the memory and mental contentment. Further, material for certain sensations is also *cooked* by Pitta. They say that at the end of the retina a chemical process takes place by which the image is imprinted for the time being on the sensitive surface. In western physiology, it is the photo-chemical substance—which is probably identical with what the Ayurvedist calls “*Alochaka Pitta*” (आलोचकपित्त). The colouring matter of the blood is also said to arise from the action of another form of *Pitta* known as “*Ranjaka Pitta*” (रञ्जकपित्त—Hæmoglobinogen?) that is said to exist in the spleen and liver(?). In one word therefore you can take *Pitta* as the one great principle which guides all chemical activities that are needed to sustain life.

#### *Kapha—the Cooling or Preservative Principle.*

I will next take up *Kapha* or *Sleshmā*, the Cooling or Preservative Principle. It is said that just as there is the consuming principle which keeps up the fire burning, there is another principle which keeps up a certain amount of coolness and preserves the tissues from burning away. This cooling principle keeps the body cool giving normal secretions which are preservative in their purpose. For instance, it always induces the secretion of a cooling or mucous substance in the mouth and nostrils, in the respiratory passages, in the eyes, in the stomach, in the joints, etc. Whenever there is friction, wherever there is chance of drying up, wherever there is heat-production, there comes in this principle manifesting itself in the secretion of preservative fluids.<sup>7</sup> As there are several forms of crude *Pitta* like gastric juice, bile and

6 सप्तभिर्देहधातारो धातवो द्विविधे पुनः ।

यथास्वप्नग्निभिः पाकं यान्ति किद्रूपमादवत् ॥—*Charaka, Chikitsa*, Chapter XV, V-10.

7. सन्धिसंश्लेषणस्नेहनरोपणपूरणव्रणतर्पणबलस्थैर्यकृत् श्लेष्मा पित्तधा प्रविभक्त उदककर्माणानुग्रहं करोति ॥—*Sushruta, Sutra*, Chapter XV, 5.

And again—

सोम एव शरीरे श्लेष्मन्निर्गतः कृपितकृपितः शुभाशुभानि करोति । तद्वयथा—दाढ्यं शैथिल्यमुपचयं काश्यं सुतसाहमानस्यं वृषतां कौशतां ज्ञानसज्ज्ञानं बुद्धिं मोहमेवमादीनि चापराणि हन्त्यदीनि ॥—*Charaka, Sutra*, Chapter XII, 46.



pancreatic juice, so also this principle is principally manifested in several tangible forms like epithelial and endothelial secretions, e.g., synovia, mucus, normal lymph, etc. These crude forms of *Kapha* known as "Rasaka", "Tarpaka", "Shleshaka", etc., are identical with mucus, synovia, normal lymph, etc. On the mental side too a subtle form of *Kapha* is said to circulate in the blood and produce a damping and cooling effect on the mind giving patience and power of inhibition so as to check the restlessness of *Rajas* the mental principle that urges to action and agility.†

*Disturbance of Tridhatu or Tridosha.*

Let us now consider some symptoms caused by the disturbances of Tridosha equilibrium. When one of these principles, for instance *Pitta*, is accentuated (पित्तवृद्धि) the subject feels heat all over his body; he feels burning sensation in the eyes and in the hands and feet; he desires cold baths and cold drinks; his digestion is upset—by over-secretion of acid in the stomach; a larger amount of bile is also secreted from the liver and the stools are deep yellow. In the whole system, there is evidence of increased combustion creating great hunger and thirst. On the other hand in failure of *Pitta* (पित्तक्षय), the patient's body temperature remains sub-normal; the gastric juice and bile and other digestive juices are secreted poorly; there is total anorexia. The indigestion is of a different type—that of deficiency. The food is passed undigested and the patient soon becomes anæmic partly through non-assimilation of food and partly through failure of '*Ranjaka Pitta*' (the original colouring principle of blood).

Take another instance—a man's *Kapha* principle is accentuated (कफवृद्धि). He is said to have caught a cold. His nasal mucous membrane secretes more than is necessary to keep it moist. The mouth becomes full of saliva. The stomach does not function properly and becomes full of mucus. The joints become somewhat turgid and painful with increased synovia. The patient feels great lethargy and lassitude. On the other hand, if this principle is on the wane (कफक्षय) the skin becomes rough and dry, there is increased heat and thirst with sleeplessness. The joints become dry and stiff through failure of synovia and the various mucous membranes become parched.

If one is suffering from derangement of *Vayu*, there is either general nervous debility or high nervous tension. In the

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† According to Ayurveda, *Rajas* is the mental principle of action and *Tamas* the mental principle of inhibition. These when deranged cause mental diseases.



first case, he finds himself weak and debilitated in all functions. He finds the secretory and excretory activities required for digestion and normal absorption below par. He finds his bodily and mental activity subnormal. Such a case is often called neurasthenia or nervous debility—the Ayurvedists call it *Vayu-kshaya* (वायुक्षय) or the waning of Vayu. Take the other case, say one of Hysteria. A girl gets violent contractions of the muscles of her hands and feet. She gets cramps and fits. Her vision and hearing may be more acute than normal. These are manifestations of *Vayu-Vridhhi* (वायुवृद्धि)—(the hyper-functioning of Vayu).

The Ayurvedic physician instead of treating this or that symptom in such cases treats the deranged principle or principles. He wants to bring about the normal state of the *Doshic* principles in the body according to the therapeutic methods depending on the theory of Tridosha. The subject is such that a much longer discourse will be needed to deal with all the symptoms of Kshaya (waning) and Vridhhi (waxing) of the three principles in different phases and with the pathological and therapeutic laws which are based on the working of these principle. But I hope it will be clear from what little I have said above that this theory of Vayu and Pitta and Kapha is not merely speculative but is highly practical from the view-point of the Ayurvedist, with whom, it is the key-note of all physiological functions. When one thoroughly grasps this theory, many intricacies of the symptoms of diseases will not only become intelligible to him but will also be amenable to his methods of treatment. This is every day experience.

### *The Theory of Tridôsha enunciated.*

The theory may be summarised thus in three aspects :

#### A. *The Physiological Aspect.*

1. There are three principles (called Dhâtus or Dôshas known as *Vayu*, *Pitta* and *Kapha* which guide all physiological functions.<sup>8</sup>

8. चीणा वर्द्धयितव्याः, बृहा ऋसयितव्याः, सप्ताः पालयितव्याः ।—*Sushruta*.

9. नित्याः प्राणभृतां देहे वातपित्तकफास्त्रयः ।

विकृताः प्रकृतिस्था वा तान् वृत्तुसितं पण्डितः ॥—*Charaka Sutra*, Ch. 18, 41.

सर्वे एव खलु वातक्षित्तश्चैश्माणः प्रकृतिभूताः पुरुषसत्यापन्नैन्द्रियं बलवर्णसुखोपपन्न-  
मप्युषा महतोपपादयन्ति ।—*Charaka Sutra*, Chapter XXII, 17.



2. The maintenance of their equipoise or equilibrium means health.<sup>10</sup>

3. The disturbance of their equipoise or equilibrium leads to disease through perversion of physiological functions except in the case of 'Agantu' diseases (i. e., those caused by trauma, poisoning, etc.) where the disturbance comes later.<sup>11</sup>

B. *The Pathological Aspect.*

1. The etiological factors described hereafter disturb the equipoise of the Doshas or principles) according to definite laws and the abnormality manifests itself either in the waning (क्षय) or the waxing (वृद्धि) of the principle (or principles) deranged according to the nature of these factors.<sup>12</sup>

9 वातपित्तश्लेष्माण एव देहसम्भवहेतवः । तैरेव अग्न्यापन्नैरधोमध्योर्हमन्निर्वष्टैः शरीर-  
मिदं धार्यते अगारमिव स्थूणाभित्सिभिरतस्तत् विस्थूणासाहरेके ॥—*Sushruta,*  
*Sutra*, Chapter XXI, 2.

विकृताविकृता घ्नन्ति शरीरं वर्तयन्ति च ( *Astangahridayam*, *Sutra*,  
Chapter I, V )

विसर्गदानविक्षेपैः सोमसूयानिला यथा ।

धारयन्ति जगद्देहं कफपित्तानिला स्तथा ॥—*Sushruta*, *Sutra*, Chapter XXI, 8.

सर्वशरीरचराः खलु वातपित्तश्लेष्माणः सर्वस्मिन् शरीरे

कृपिताकुपिताः शुभाशुभानि कुर्वन्ति ॥—*Charaka*, *Sutra*.

10 विकारो धातुवैषम्यं साम्यं प्रकृतिरुच्यते ।—*Charaka*, *Sutra*, Chapter IX, 3.

य एव देहस्य समा विवृण्वे त एव दोषा विषमा वधाय ।—*Astanga-Hridaya*,  
Chapter XI.

11. सर्व एव विकारा निजा नात्यद वातपित्तकफेभ्यो निवर्तन्ते ।—*Sushruta*, *Sutra*,  
Chapter XIX.

स्वधातुवैषम्यनिमित्तजा ये विकारसंघा बहवः शरीरे ।

न ते पृथक् पित्तकफानिलेभ्य आगन्तवस्त्वेव ततो विशिष्टाः ॥—*Charaka*, *Sutra*,  
Chapter XIX, 15.

आगन्तुर्हि व्यथापुर्व्वमुत्पन्नो जघन्यं वातपित्तश्लेष्माणं वैषम्यमापादयति ।

निजे तु वातपित्तश्लेष्माणः पूर्वं वैषम्यमापयन्ते जघन्यं व्यथामभिनिवर्तयन्ति ॥

*Charaka*, *Sutra*, Chapter XX, 5.

12. दोषा एव हि सर्वेषाम् रोगाणामेककारणम् ।—*Astangahridaya*, *Sutra*,  
Ch XII, 30.



2. The abnormal condition of each of the three principles gives rise to definite symptoms in special areas or on the general conditions which show clearly which principle is deranged and how it is deranged.<sup>13</sup>

When the abnormal condition persists, definite changes occur in the particular tissues (दृश्य) concerned as the result of the affection of areas (स्थानसंश्रय) causing pathological changes (दृश्यविकृति) in them. The condition has been divided into six stages. † In the case of trauma and other extraneous causes, the pathological condition comes first and the derangement of the *Doshas* follow leading to further similar changes.

### C.—The Therapeutic Aspect.

1. All substances—food, drugs, exercise etc., have certain properties (गुण) which act on the three principles

यथाबलं यथास्वञ्च दोषा वृद्धा वितन्वन्ते ।

रूपाणि, जहति चीणाः, समाः स्वं कर्म्म कुर्वन्ते ॥

चयः स्थानं च वृद्धिञ्च विज्ञेया त्रिविधा गतिः ॥

—*Astangahridaya, Sutra, Ch. XI, 44.*

13. These symptoms have been enumerated briefly in the following texts :—

वातचये मन्दचेष्टतालपवाक्तमः प्रहृषौ सूदृशं ज्ञताच । पित्तचये मन्दोष्माग्निता निष्प्रभत्वञ्च ।  
श्लेष्मचये रुक्षतान्दार्ढ्यं श्लेष्माशयेतराशयेथानां गुरुता सन्धिगैथिल्यं तृणा दीर्घत्वञ्च ।  
प्रजागरणञ्च ।—*Sushruta, Sutra, Chapter XV, 9* Also वातवृद्धौ  
त्वक्पारुष्यं कार्पाकायां गावस्फुरणमुष्णकामिता निद्रानाशोऽल्पबलवत्त्वं गाढवर्चस्त्वञ्च ।  
पित्तवृद्धौ पीताभमता सन्नापः शीतकामित्वमल्पनिद्रता सूक्ष्मां बलहानिरिन्द्रियदीर्घत्वञ्च ।  
पित्तविन्मूत्रनेत्रत्वञ्च । श्लेष्मवृद्धौ शोक्तां शैत्यं स्थैर्यं गौरवमवसादस्तन्द्रा निद्रा  
सन्धिविश्लेषश्च ॥—*Vide also Charaka, Sutra, where these symptoms*  
have been enumerated in extenso.\*

† These six stages are known as (1) सञ्चय or the stage of gathering strength, (2) प्रकोप or the explosive stage, (3) प्रसर or the stage of extension (4) स्थानसंश्रय or the affection of particular areas, (5) व्यक्ति or morbid tissue-changes in such areas, (6) भेद or the climax stage when the disease is well established and calls for urgent measures, e.g., surgical interference, etc. The symptoms of all these conditions will be found elaborately described in *Sushruta, Sutra, Chapter XXI.*



in definite ways. In the case of food and drugs, the effect varies according to taste, (रस) the chemical changes undergone in the alimentary tract (विपाक), immediate constitutional effect (वीर्य), e. g., feeling of internal heat and specific action (प्रभाव) on the constitution generally and on diseased conditions.<sup>14</sup>

2. The ultimate goal of treatment is restoration of the equipoise or equilibrium of the three principles (दोष) and of the tissues (द्रव्य) by the employment of food, drugs, exercise, enemata, etc. as are known to act (a) either against the deranged principles (हेतुविपरीतचिकित्सा) or (b) against the diseased condition particularly by specific actions (व्याधिविपरीतचिकित्सा) or (c) against both (हेतुव्याधिविपरीतचिकित्सा). The remedial agents employed are sometimes similar in nature to the deranged principle or to disease-symptoms or to both (e.g., hot application for inflammation, purgatives in dysentery, etc). This is called (विपरोतार्थकारिचिकित्सा ।)

3. The preservation of health (Preventive Medicine) mainly depends upon the maintenance of this equipoise by suitable food, air, exercise and the other measures recommended for health (स्वस्थवृत्त) as—daily and seasonal routines (दिनचर्या & ऋतुचर्या), Brahmacharyya (व्रह्मचर्य) or sexual continence, etc. These measures include the occasional use of particular kinds of food and modes of living and remedial agents to counteract the normal variations of the *Doshas* according to daily and seasonal disturbances (e.g., the use of laxatives in Autumn when Pitta is deranged).

14. For instance, substances with sweet, sour or salt taste subdue Vayu; those with astringent, sweet and bitter taste subdue Pitta; those with astringent, pungent and bitter taste subdue Kapha; and so on. The specific action (प्रभाव) of certain substances, however, always predominates over their general effect on the *Doshas* and is very important in the case of certain drugs. For details of the subject, vide Sushruta, Sutra, Chs. 40, 41 and 42; also Vagbhata (बागभट), Sutra, Chs. 1, 9 and 10, and Charaka, Sutra, Chap. XXVI.



# VEGETABLE DRUGS IN AYURVEDA.

## THERAPEUTICS OF ARJUNA,

BY

KAVIRAJ A. C. BISHARAD, VISHAGABHUSHAN, M.R.A.S. (LONDON).

### SYNONYMS:

SANS: Kakuva, Nadisarjja, Indradru, Beerabriksha, Beera, Dhavala Arjuna-nau a, Sathadruma, Hridrogabairi (*Madan Pal*).

HIND: Khôa, Kauha;

MARHATTI: Arjun, Sadhara and Saradhoh.

BENG: Arjun.

CANARESE: Tangromandi.

GUJRATI: Kadoa.

TELEGU: Matichetti.

ASSAM: Arjun.

LATIN: Terminalia Arjuna.

HABITAT: It is available almost in all parts of Bengal, the United Provinces, Central India, Southern India and Ceylon. It is a big-sized tree with brownish white bark.

PARTS USED: The thick bark specially of very old trees are preferred. It has an agreeable astringent taste. Leaves are also used in certain cases.

CHEMICAL COMPOSITION: The bark contains about 15% tannin and the ash of the bark contains 34% of almost pure calcium carbonate.

### USES IN AYURVEDA.

Several passages from different writers are quoted here as to its therapeutics:—

ककुभः शीतल भग्नक्षतचय विषास्रजित् ।

मेदोमेह व्रणकफपित्तहृद्दरोगहृत्सरः ॥

—MADAN PAL.

*Kakuva* is cooling, laxative, and is useful in wounds, ulcers, contusions, promoting union of fractures, fattiness, heart-disease, urinary troubles, and diseases of *Kapha* and *Pitta* type. BHAVA-PRAKASHA speaks of Arjuna in the identical strain:

ककुभः शीतलो हृद्यः क्षतचय विषास्रजित् ।

मेदो मेहव्रणान् हन्ति तुवर कफपित्तहृत् ॥



RAJABALLAVA speaks of the bark as :

पार्थः पथ्यः क्षते भग्ने रक्तस्रवणकच्छयो ॥

Partha (Arjuna) is beneficial in ulceration, fractures, hæmoptysis and strangury.

RAJA NIGHANTU speaks of it as :

अर्जुनसु कषायोष्णः कफघ्नो दूग्णशोधनः ।

पित्तश्रमट्पात्तिर्धो मारुतामय कोपनः ॥

Arjuna is astringent and heating in action, a destroyer of *Kapham* and corrects ulcers as an antiseptic. It cures thirst, and is indicated in the derangements of *Kapham*, *Pittam* and *Vayu*.

In the treatment of hæmoptysis CHARAKA prescribes pulverised Arjuna-bark internally along with equal quantity of pulverised red-sandal wood, sugar and rice-water. Externally its leaves are recommended for covering ulcers and sores.

BAGBHAT speaks of an ointment prepared of Arjun-bark and honey as useful in acne.

SUSHRUTA found the decoction of Arjuna-bark and white sandal wood, prepared in the usual way, effective in spermatorrhœa, and HARITA recommended its decoction in gonorrhœa.

In strangury BAGBHAT advises the administration of the decoction of the bark.

The bark was also found effective in the treatment of diarrhœa, dysentery and sprue. The bark, well pounded with goat's milk and administered with the same *Anupana*, stops the blood in dysentery.

CHAKRADATTA : Of all the Ayurvedic authors CHAKRADATTA made the most of this drug, as he recommended it in various diseases such as dysentery, heart disease, fracture and debility.

The following preparation is recommended in heart disease :—

Bark of Arjuna	...	2 tolas
Cow's milk	...	4 oz.
Water	...	12 oz.

Boil till the water is evaporated and administer.

In *Garuda Purana* we find a passage where a decoction of "अर्जुनस्य त्वनासिद्धं क्षीरं शोच्यं हृदामये"—where a decoction of Arjuna bark prepared in milk is recommended in diseases of the heart.

In our experience we have found it very effective if administered daily every morning on empty stomach in the following manner :—

Thick bark of Arjuna	...	• ½ tola.
Cane sugar	...	2 tolas.
Cow's milk (boiled)	...	8 oz.



The bark should be well pounded and mixed with milk and sugar and administered. Numbers of heart cases with complicated symptoms, such as endocarditis, mitral regurgitation, pericarditis, Angina, showed rapid improvement in every respect when placed under this treatment for some length of time and a regular use for a year entirely removed all distressing symptoms.

Pulv. Bark is also recommended to be used with Cow's ghee and sugar in heart disease.

In fractures CHAKRADATTA advises the use of pulverised Arjuna-bark with milk and ghee.

In treatment of Phthisis the author of BHABAPRAKASHA eulogises the merits of the following preparation :—

Pulverised Arjuna-bark should be soaked and dried seven times successively in the juice of Basaka-leaves (*adhatoda Basaka*), and should be administered as a linctus well mixed with honey, sugarcandy and cow's ghee. It stops the blood in the sputum and clears up the sores and cures them. We use this mixture as an *Ani pana* in the treatment of consumption along with reduced minerals, such as pearl, coral, gold, lead and mica. In many cases the effect was very encouraging.

Khory in his *Materia Medica of India*, speaks of Arjuna-bark as follows :

"Astringent and Tonic, given in Heart Disease. Locally used as a wash for wounds, ulcers, contusions and especially used in promoting union of Fractures and dispersion of Ecchymosis, Internally largely used by the natives in Hemorrhagic and other Fluxes and are Lithotropic."

We would request our brother practitioners to try fresh thick bark from very old Arjuna trees administering it as instructed above in diseases of the heart, whether functional or organic and note the result; and then report the result through the medium of this Journal for the benefit of the suffering humanity.

There are several preparations of Arjuna amongst which may be noted *Nagarjunabhra*, *Parthyadyarista* and *Arjuna ghruta*. These are largely used in the treatment of heart diseases, but my personal experience is that the fresh bark administered as above suits all cases and proves effective within a short time. Along with this preparation, *Makaradhwaja*, mica (not less than 500 touch) or gold *Bhashma* may be prescribed with benefit.



## MEDICAL JURISPRUDENCE IN AYURVEDA

BY

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(Continued from page 300.)

### III.

I have already said that a system of legal medicine existed in ancient India and medical knowledge was frequently resorted to for legal purposes. The system of legal medicine which existed in those days was rather crude in comparison with the present system of medical jurisprudence; but it must be noted that several centuries before Christ the sages of ancient India understood the importance of the subject and tried to apply medical knowledge to legal principles—in aid of the administration of justice.

In the Arthasastra of Kautilya, ascribed to the fourth century B. C., we have undoubted evidence that there was arrangement for post-mortem examination in cases of suspicious and sudden death. Thus in the Arthasastra (Chapter VII, Book IV) we have the following text :—

आशुमृतक परोक्षा । (Post-mortem examination—  
medico-legal.)

“तैलाभ्यक्तमाशुमृतकं परोक्षित ॥

निष्कर्णमूत्रपुरीषं वातपूर्णकोष्ठत्वक्कं शूनपादपाणिमुग्धमौलिताक्ष  
सव्यव्धनकण्ठं पौडननिरुद्धोक्त्वासहतं विद्यात् ॥

तमेव सङ्कुचितवाहसक्थिमुदन्धनहतं विद्यात् ॥

शूलपाणि पादोदरमपंगताक्षमुद्धृतं बाभिमवरोपितं विद्यात् ॥

निस्तब्धस्तदाक्ष सन्दष्टजिह्वामध्यातादरमुदकहतं विद्यात्

शोणितानुसिक्तं भग्नभिन्नगात्रं काष्ठेरश्मिभिर्वा हतं विद्यात् ॥

सन्धग्नस्फुटितंगात्रं विचित्रं विद्यात् ॥

श्यावपाणिपाददन्तनखं शिथिलमांसरोमचर्मणं केनोपदिग्ध

मुखं विषहतं विद्यात् ॥



तमेव सशोणितदंशं सर्पकौटहतं विद्यात् ॥

विक्षिप्तवस्त्रगात्रमतिवांताविरिक्तं मदनयोगहतं विद्यात् ॥

अतोऽन्यतमेन कारणेन हतं हत्वा वा दन्तभयादुद्धम्य निकृत्त-  
कण्ठं विद्यात् ॥

विषहतस्य भोजनशोषं पयोभि परीक्षेत ।

हृदयादुद्धत्याग्नौ प्रक्षिप्तं चिटचिटायदिन्द्रधनुर्वर्णं वा विषयुक्तं  
विदयात् ॥

दग्धस्य हृदयमदग्धं दृष्ट्वा वा तस्य परिचारकजनं वा दन्त-  
पारुश्यादतिमार्गेत ।

दुःखोपहतमन्यप्रसक्तं वा स्त्रोजनं दायनिवृत्तिस्त्रोजनाभि-  
मन्तारं वा वन्धुम् । तदेवोद्धम्यस्य परीक्षेत ॥

स्वयमुद्धम्यस्य वा विप्रकारमयुक्तं मार्गेत ॥

सर्वेषां स्त्रीदायादयोः, कर्मसंधा प्रतिपक्षहेषः

पण्यसंस्थासमवायो वा विवाद पदानामन्यतमद्वा रोषस्थानं ;

रोषनिमित्ता घातः ॥

#### EXAMINATION OF SUDDEN DEATH

“ In cases of sudden death, the corpse shall be smeared over with oil and examined.

“ Any person whose corpse is tainted with mucus and urine, with organs inflated with wind, with hands and legs swollen, with eyes open, and with neck marked with ligatures may be regarded as having been killed by suffocation and suppression of breathing.

“ Any person with contracted arms and thighs may be regarded as having been killed by hanging.

“ Any dead person with swollen hands, legs, and belly, with sunken eyes and inflated navel may be regarded as having been killed by hanging.

“ Any dead person with stiffened rectum and eyes, with tongue bitten between the teeth, and with belly swollen, may be considered as having been killed by drowning.

“ Any dead person, wetted with blood and with limbs wounded and broken may be regarded as having been killed with sticks or ropes.



" Any dead person with fractures and broken limbs, may be regarded as having been thrown down.

" Any dead person with dark-coloured hands, legs, teeth and nails, with loose skin, hairs fallen, flesh reduced, and with face bedaubed with foam and saliva, may be regarded as having been poisoned.

" Any dead person of similar description with marks of a bleeding bite, may be considered as having been bitten by serpents and other poisonous creatures.

" Any dead person, with body spread and dress thrown out after excessive vomiting and purging, may be considered as having been killed by the administration of the juice of the *madana* plant.

" Death due to any of the above causes is, sometimes under the fear of punishment, made to appear as having been brought about by voluntary hanging, by causing marks of ligature round the neck.

" In death due to poison, the undigested portion of meal may be examined in milk. Or the same extracted from the belly and thrown on fire may, if it makes 'chitchita' sound and assumes the rainbow colour, be declared as poisoned.

" Or when the belly (*Hridayam*) remains unburnt, although the rest of the body is reduced to ashes, the dead man's servants may be examined as to any violent and cruel treatments they may have received at the hands of the dead. Similarly such of the dead man's relatives as a person of miserable life, a woman with affections placed elsewhere or a relative defending some woman that has been deprived of her inheritance by the dead man may also be examined.

" The same kind of examination shall be conducted concerning the hanging of the body of an already dead man.

" Causes such as past evils or harm done to others by a dead man, shall be inquired into regarding any death due to voluntary hanging.

" All kinds of sudden death, centre round one or the other of the following causes:—

"Offence to women or kinsmen, claiming inheritance, professional competition, hatred against rivals, commerce, guilds



and any one of the legal disputes, is the cause of anger ;  
anger is the cause of death."

*Kautilya's Arthasastra—Translation by R. Shamasastry,  
B.A., M.R.A.S., Librarian, Government Oriental Library,  
Mysore.*

The Post mortem examination was gradually made soon  
after death smearing the dead body with oil. They also  
used to preserve dead bodies in oil—sometimes for purposes  
of cremation and sometimes for purposes of post mortem  
examination if it were not possible to do it soon after death.  
We have in the Ramayana :—

“तैलद्रोण्यां तदामात्याः संवेश्य जगतोपतिम् ।

राज्ञः सर्वाण्यथादिष्टाश्चक्रुः कर्माण्यनन्तरम् ॥”

( रामायणम् ; अयोध्याकाण्डम् ; ६६३मः सर्गः )

“ Then the ministers, as directed, (by wise sages such as  
Vashista and others) placed the king in a tub full of oil and  
afterwards they observed other necessary ceremonies.”

( To be continued ).

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The current issue completes the first year of the life of the  
*Journal of Ayurveda*, and we would request our constituents to  
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## ASTHMA IN AYURVEDA

ASHUTOSH ROY L. M. S., HAZARIBAGH.

(Continued from our last issue).

—o—

I. OTHER PREPARATIONS ALLIED TO THE ABOVE CONTAINING  
BOTH VEGETABLE AND INORGANIC DRUGS.1. *Basanta Tilak Rasa*.

R/.

Musk and Camphor—cardiac stimulant

Gold—nervine

Iron and Mica—haemotonic

Makaraddhaj—alterative

Tin—diuretic

Burnt Pearl and Coral—stimulant antacid

with juice of Gokhur (*Tribulus Terrestris*)—diuretic

Sugarcane juice—diuretic

Vasak—expectorant

In dyspepsia of Phthisis and other grave conditions in weak subject.

The above with Iron pyrites and Silver is known as Brihat Basanta Tilak Rasa.

Note :—Regarding the administration of Musk and Camphor, it may be noted that Camphor is to be given alone and Musk avoided if the patients' Vayu becomes "rukshina" (too much irritated—"arthritic diathesis" and secretions are less in quantity) ; on the other hand in condition of exudative diathesis, e.g, severe coryza, musk is always to be preferred to camphor and may be given in combination.

2. *Brihat kaphaketu*.

R/

Gold

Pearl and Coral burnt.

Mica.

Makaraddhaj.

Make into pill with mother's milk.

This is a simpler prescription in Swasa of children with irregular pulse and cold extremities.



## R/

Gold and Silver.  
Iron and Pyrites.  
Mercury and Sulphur.  
Burnt Pearl.  
Makaraddhaj.  
Trikatu.

4. *Maha-Lakshmibilas.*

R/ .

Mercury and Sulphur.  
Iron and Mica.  
Tin  
Harital (arsenic)  
Copper.  
Aconite.  
Camphor.  
Nutmeg and Mace (carminative)

with pulv. seed of Bridha darak (*Gmelina asiatica*) } cerebral  
of Dhatura } stimulant.

rub with Betel-leaf juice—good in Vayu-Kapha.

5. *Tarunananda Rasa.*

It contains :—

Alternative—*Hg* and *S* as black sulphide of mercury or kajjali  
Bhuikumra (Ipomea Digitata)

Specific to check vayu—Brihat Panchamul.

Astringent—Barella (*S. cordifolia*), Amloki (*E. myrabolan*)

Diaphoretic—mutha (C. Rotundus)

Diuretic—Satamuli (*A. Sarmentosus*)

Expectorant—Brihati (S. Indicum) and Vasaḥ, Talispatra.

Antibilious—Punarnava:

Cardiac stimulant—Camphor.

Carminative—nutmeg and mace, cardamom and cloves.

Antispasmodic—Jatamansi (valerian l.)

Good in children as the name indicates.

ALLIED PREPARATIONS--FOOD IN SWASA WITH FEVER.

1. *Kaphaketu Rasa.*

R/

Burnt Borax and conch-shell (antacid)  
Aconite—antifebrile.  
L. Pepper and juice of ginger—carminative.



2. *Mrityunjay Rasa.*

R/

Mercury and Sulphur.  
 Burnt Borax.  
 Long and black pepper.  
 Aconite.

3. *Chandramrita Rasa.*

It contains :—

Carminatives—Trikatu, Piper chava, Black pepper,  
 Coriander, Carraway.  
 Laxative—Triphala.  
 Digestive—Rock salt.  
 Antacid—Burnt Borax.

rubbed with juice of :—

Expectorant—Bamanhati, Kantikari  
 Diaphoretic—Mutha  
 and Goat's milk—good in Kapha disease or exudative (e. g.  
 Phthisis, Diarrhœa).

4. *Brihat Chandramrita Rasa.*

R/

Mercury and Sulphur  
 Mica and Iron  
 Camphor  
 Copper  
 Gold

with the vegetable drugs :—

Nervine stimulant—Bridhadarak seed (G. Asiatica)  
 Carminative—Carraway, Cloves, long Pepper.  
 Alterative—Bhuikumra (I. digitata)  
 Diuretic—Satamuli (A. Sermentosus)  
 Antibilious—Kulakhara (Hygrophile asiatica)  
 Astringent—Barella (S. cordifolia)  
 Cerebral stimulant—Dhatu (D. stramonium)  
 Fragrant antiseptic—Dhuna (Gum resin)

add honey.

5. *Surjyabarta Rasa.*

R/

Mercury and Sulphur.  
 rub with juice of Ghritakumari (Aloe Indica)—laxative.  
 add copper



Debdaru (*Pinus Deodaru*)—antiseptic expectorant.

Trikatu—carminative.

Root of Rakhalsasa (*citrubus colocynthus*)—Laxative, sugar.  
good if associated with constipation.

6. *Brihat Kasturi Bhairab.*

R/

Gold and Silver.

Musk and camphor.

Copper.

Mica.

Arsenic.

and the following vegetables :—

Astringent—Dhai Phul (*woodfolia floribunda*), Aknadi  
(*cissampelos Pareira*), E. myrabolan.

Stimulant—Dried seed of sim (*Gonavalia Eusifformis*) or seed  
of Alkusi (*mucuna Pruriens*) and Bata (*Pavonia*  
*odoretta*).

Anthelmentic—Viranga (*Embelia Ribes*).

Diaphoretic—Mutha (*C. Rotundus*).

Carminative—ginger.

In dyspnœa with fever, collapse. delirium, etc.

7. *Maharaj B ti.*

R/

Mercury and Sulphur

Mica and Iron

Tin.

Gold or Iron Pyrites.

Copper or Silver (if diarrhœa)

Camphor or Musk (if much corryza) and the following  
vegetables.

Nervine seed of Bridhadarak (*G. Asiatica*)

Cerebral stimulant—seed of Dhatura (*D strammonium*)  
Dried seed of Sim (*C. Ensiformis*)

Diuretic—Satamuli (*A. Sarmentosunus*)

Carminative—Cloves, Nutmeg and Mace.

Astringent—Barella (*S. cordifolia*)

Goruk chakulia (*S. spinosa*)

Antibilious—Kulakhara (*H. Spinosa*)

Alterative—Bhuikumra (*I. Digitata*)

Talmuli (*Curculigo orderides*).



8. *Bijaya Bati*.

R/

Mercury and Sulphur, Iron and Mica, Copper  
and the following vegetables :—

Antifebrile—Aconite.

Anthelmintic—Viranga (E. Ribes).

Carminative—Rumka (P. aurantiacum), Cardamom root of  
L. Pepper, Trikatu, Chita.

Laxative—Triphala croton

Fragrant—Nageswar (mesua Fera)

Diaphoretic—mutha (C. Rotundus)

K. ALLIED PREPARATIONS CONTAINING IRON.

1. *Jvarasani Lauha*.

R

Mercury and Sulphur—alterative and antiseptic

Iron and Mica—Hæmatenic

Rock salt—Digestive

Aconite—Antifebrile

Copper—Emetic and Laxative

Pulv. Black pepper—Carminative

Nishinda (vitex Negundo)—Emetic

In Vayu-Kapha variety of "swasa" with fever and much  
Phlegm in chest.

2. *Pippaladya Lauha*

Iron—Hæmatenic

L. pepper—Carminative

E. myrobalan—Laxative

Dried ginger—Carminative

Liquorice—Laxative

Inside of seed of plum—Laxative

Pushkar (root)—Aromatic stimulant

In Vayu-Pitta Asthma with constipation.

3. *Mahaswaswari Lauha*

Iron and Mica—hæmatenic

Triphala

Liquorice

Dried Raisins

Inside of seed of plum

Long pepper

Cardamom

} ... laxative

} ... carminative



Bamboo manna	}	... expectorant
Talispatra		
Viranga—anthelmentic		
Kur—aromatic stimulant		
Nageswar—fragrant		
Sugar	}	... food
and		
Honey		

### L. ALLIED PREPARATION CONTAINING MICA.

#### 1. *Jvarari Abhra.*

R/.

Mica  
Copper  
Mercury and Sulphur  
Aconite  
Dhatura seeds  
Trikatu

In Vayu-Pitta Asthma with fever.

#### 2. *Dameswar Abhra.*

It consists of—

Haematenic—Mica  
Carminative—P. Chava, P. Zeylanica, P. Longum,  
Expectorant—Bamanhati, Vasak  
Bitter—Ghora Neem (*melia azadrach*)  
Cerebral stimulant—Dhatura  
Diuretic antifebrile—Gulantha  
Laxative—Kalkasunda (*cassia saphora*)

In Vayu-Kapha Asthma.

#### 3. *Kanchanabhra.*

Gold and Silver  
Rasasindura (Sulphide of mercury—red)  
Pearl and Coral burnt—antacid, stimulant  
Iron and Mica—Haematenic  
Musk—Stimulant  
Realgar (arsenic)—Do. antifebrile  
E. Myrobalan—Laxative

In dyspnoea of Phthisis.



4. *Brihat Kanchanabhra.*

It contains gold and silver, copper, tin, iron and mica, pearl and coral, Rasasindur, Baikranta, musk, cloves and mace.

Elabaluk (anthelmintic)

Rub with the juice of

Kessur—(kyphus kysoor)—sedative

Ghritakumari (Aloes) laxative

Goat's milk

in dyspnœa of Phthisis and Prameha.

5. *Kalyansundar Abhra.*

It contains besides mica the following vegetable drugs :—

Laxative—Juice of Bael-leaf

Astringent—Amlaki (E. myrobalan)

Barella (S. cordifolia)

Sona (oroxylum Indica)

Diuretic—Satamuli (A. Sarmentosus)

Sugarcane juice

Parul (stereospermum suavasens)

Diaphoretic—mutha (C. Rotundus)

Bitter—Ganiari (Pruna spinosa)

Expectorant—Til (sesamum Indicum)

Vasak and Kantikari

Fragrant antiseptic—Bala (Pavonia odorata)

M. Medicated molasses or sugar comparable to preparations of malt of West.

1. *Bhargigur.*

Dasamul—Check Vayu-Kapha.

Bamanhati—Expectorant

E. Myrobalan—Astringent

Trikatu

Cinnamon

Cardamom

Cloves

} Carminative

Jabakshar—Laxative.

Basis—Old molasses and honey.

2. *Bhargi Sarkara.*

Root of Bamanhati, Vasak, Kantikari—Expectorant.

Meat of Bat—Checks Vayu-Kapha

Guratwak (C. Zeylanica)

Trikatu—Cinnamon—Carminative



Bach (acorus catanus)

Nageswar—(Mesua Ferra) fargrant, gastric sedative

Triphala—Laxative

Mutha—Diaphoretic

Gokhur—Diuretic

Talispatra—Expectorant

Basis—Sugar.

M. Medicated ghrita (animal fat) comparable to preparations of cod liver oil in the West.

1. *Dasamulchatpalak Ghrita.*

R/

Dasamul Check Vayu-Kapha

Chatpatak—A combination of six  
specific carminatives

Ghee (clarified butter from cow's milk)

2. *Chhagaladya Ghrita (comparable to malted cod liver.)*

R/

Ghee

Goat's meat

Sugar

Barela *S. cordifolia*)

Goruk Chakulia (*S. Spinosa*)—astringent

Aswagandha—Nervine

Hemidesmis—alterative

Gulantha—Diuretic

Bhuinkumra (*I. Digitata*)—alterative

Kakoli

Khira-kakoli } —soothing roots from Himalayan region.

3. *Hingsradya Ghrita.*

Ghee.

Cow's milk.

Hinsra (Kalkora) [*Cataria sapiria*]—antiseptic, antiperiodic.

Natakaranj (*Guilandina Bonduceli*)— do. do.

Triphala—laxative.

Trikatu—carminative.

Chita (*P. Zeylanica*)—

do.

4. *Tejobaladya Ghrita.*

Ghee—Sathi (*C. Zeodoria*)—food.

Carminative—*P. Chava*, *P. Longum*, *P. Zeylanica*.



- Bach (*A. calamus*), Sonchal salt, Rock salt.  
 Astringent—*E. myrobalan*, Pulv. Bael.  
 Stimulant—Kur and Pushkar.  
 Expectorant—Katki (*Helebore* - *P. Kurrooa*), Talispatra.  
 Fragrant—Katruia (*Andropogon Schoëmauthes*)  
 Laxative, anthelmentic,—Palas (*Butea frondosa*)  
 Bitter—Bhui-amla (*P. Neruli*)  
 Check Pitta—Jibanti (*C. orientalis*)

### 5. *Sringigur Ghrita.*

It contains—

- Expectorant—Kantikari (*S. Xanthocarpum*)  
                   Brihati (*S. Indicum*)  
                   Basak (*A. vesica*)  
                   Bamanhati (*C. Siphonanthus*)  
                   Kakrasringhi (*R. Suceedania*)  
                   Bansalochan (*Bamboo manna*)  
                   Talispatra (*Pinus W.*)  
 Diuretic—Gulancha (*T. cordifolia*)  
                   Satamuli (*A. Sarmuntosus*)  
                   Gokhur (*T. Terrestris*)  
                   Parul (*S. Suaveolus*)  
 Carminative—*L. Pepper*, nutmeg, cloves, tejpatra, cinnamon,  
                   cardamom ; dried ginger.  
 Stimulant—Kur (*A. auriculata*)  
 Food as basis—old molasses, ghee, cow's milk and honey.  
 This is also comparable to malt codliver.

6. Chaybana Prasha — This is too well-known as a medicated food.  
 It contains—ghee, sugarcandy, oil sesamum, honey—Nitro-  
                   genous pulses mug and mashani (*P. mungo* and  
                   Roxburghi), starch (Sathi)

Besides vegetable drugs—

- Dasamul—checks Vayu-Kapha.  
 Astringent—(stimulate sympathetic)—Barella, Blue lotus,  
                   *E. myrobalan*.  
 Carminative—*L. Pepper*, cardamom, Tejpatra.  
 Expectorant—Kakrasringhi, Vasak, Katki.  
 Fragrant—Nageswar, Aguru.  
 Bitter—Bhui-amla (*P. Neruli*)  
                   Kakjangha (*Leea Hirta*)  
 Checks pitta—Jibanti, Punarnava.



Nervine—Aswagandha, Kur.

Laxative—C. myrobalan.

Diuretic—Gulancha, Red Sandal-wood.

Diaphoretic—Mutha.

Alterative—Bhui-kumra (I Digitata)

Hence it is a tonic in so many conditions.

(O) *Medicated Wines.*

1. Kanakasava contains—

Cerebral stimulant—Dhatura.

Expectorant—Vasak, Bamanhati, Talispatra.

Laxative—Liquorice.

Carminative—L. Pepper.

Fragrant—Nageswar.

Astringent—Dhai phul (W. Floribunda), grape, sugar, honey.

Fermented.

2. *Draksharishta.*

It contains raisins, old molasses, 'Bit' salt, B. and L. Pepper.

Carminatives—cinnamon, cardamom, Tejpatra.

Fragrant—Nageswar, Priyangu.

(P) *Medicated oil to apply to chest.*

1. Vasa Chandanadi Taila.

2. Brihat Chandanadi Taila.

The above prescriptions do not exhaust the list accumulated in Ayurvedic books in the course of centuries, but we have given enough which will meet all conditions of Primary and Secondary Swasa with complications.

We shall now try to study the principles involved :—

First of all we must remember that in acute and simple cases, vegetable drugs are used. The more complicated the case, the greater the combinations. Thus in place of one expectorant or one carminative, a number of them are used to make the prescription lengthy. This is, our critics may say, due to absence of accurate knowledge of individual drugs but is really a combination of simpler drugs to act on different parts of the same system in different times. Instances are not rare of such shot-gun prescriptions in modern pharmacopœia. The best example is Worberg's Tincture recently expunged from the modern pharmacopœia. The allopathic prescriptions are getting simpler at the present time due to the effect



(uncreseines) of homœopathy, and partly to more accurate knowledge of individual drugs. But the art of combination is dying out or left to the ingenuity of Pharmacist which is not a desirable state of things.

Secondly in chronic cases there is "dhātu" (tissue) waste and such cases are treated with dhatus (metals) combined with non-metals and vegetables. The study of Dhatus (metallic drugs) start with the Tantric period and based on advance in knowledge of chemistry.

Regarding the dhatus, we have the highest metals (gold and silver) to correct derangement of the highest tissues like the nervous tissue, we have the scale like Tin which act on the urinary system (the lowest in the trunk) correcting any kind of Prameha (urinary abnormalities).

Turning to the treatment of various kinds of *Swasa* we have as in atlopathy the various smokes, the various Linctus etc., to relieve the throat. The carminatives of the group of the various Pipers *e.g.*,

Pippali—L. Pepper,  
Marich—B. Pepper,  
Bach—Acorus calamus,  
Dried Ginger, etc.

are good for throat and we have various combinations like Trikatu, Panchakol, Chatpalak, etc., variously taken as powder mixed with decoction, medicatèd ghrita, etc.

They are largely used in combination with other drugs.

In Vayu-Kapha asthma of the chest which is a primary or secondary disease we have various antispasmodics and expectorants with suitable adjuvant medicine according as the heart, the brain or other organs are involved. It is the rule to give expectorants with carminatives.

In Vayu-Pitta Asthma of the chest where there is little secretion or expectoration and which is reflex from the abdomen or other parts of the body (*e.g.*, liver, stomach, intestines) expectorants are not given in the first stage, but carminatives, laxatives, with specific combinations for asthma are given.

There is one point to note in the principle of the chest disease in allopathy from Ayurveda. In chest diseases in the congestive stage with no expectoration we prescribe Iodides with expectorants with the idea to loosen the cough and



then get it out of the system. The congestion of the lungs is followed by secretion and the time of cure is prolonged.

In Ayurveda in the stage of congestion, no attempt is made to relieve the congestion by promoting expectoration, but attempt is made to cut it short, not allowing it to proceed to the stage of secretion. At this stage milk and sweats are not given as food for these make the congestive stage proceed to the secretive stage.

This principle of treatment has been followed by the writer with marked success in the treatment of Broncho Pneumonia in children. Instead of prescribing Iodide and stimulant expectorants, he uses small doses of Iron which reduces the congestion and cuts short the disease at the outset. It has rarely failed him, of course once expectoration has begun, expectorants are given in both Ayurveda and Allopathy.

In vayu-pitta irritation of the intestine marked by stoppage of secretion and excretions, the treatment is directed to loosen the secretions and promote their flow, Diuretics, Laxatives, etc. are given.

In Dyspeptic asthma—carminatives are given.

In vayu-kapha condition of the intestine where there is increased and exaggerated secretion, astringents are given not only to check the flux but to stimulate the sympathetic and promote tone of the intestinal organs.

In vagotonics—astrinents are given with Nervines. In sympatho-tonics nerve sedatives, antispasmodics, etc., are given.

Besides specific treatment, symptomatic treatment is done to check individual symptoms, *e.g.*, anthelmintics for worm.

In weak patients medicated wines, medicated foods analogous to malt and codliver are given. In anæmic subjects hæmatonics are given variously combined.

Medicated oils are rubbed on the chest more for soothing effect than counter-irritation.

Calcium when indicated is given in various forms as Calci Carbonate (Lime) as burnt pearl, coral, conchshell, bivalve shell, etc. It will be interesting to analyse them to find out what other ingredients are admixed with calcium in such medicines.



Besides specific combinations for swasa, we find various specific combinations, *e.g.*,

Brihat Panchamul—check vagotonic or excite sympathetic vayu.

Svalpa Panchamul—check kapha.

Dasamul—check vagotonic condition.

Triphala—Laxative combination.

Trikatu—Carminative combination.

In conclusion it may be said that the various combinations in different prescription if properly studied, will give us the key to understand not only the principles of Ayurvedic treatment, but will enable any Ayurvedic practitioner to make his own combination and prescribe like any allopath. The charge that Ayurvedic practitioners only use patent medicines will then automatically disappear, if the practice of prescribing like allopaths is followed.

It is unfortunate that the trend of modern Allopathic practice is to use more patent medicines, depending on their supply of such drugs combination from pharmaceutical chemists. Hence European doctors often remark that in spite of the very rich Indian pharmacopœia, Indian practitioners resort more to the newest and latest patent or proprietary preparations manufactured in Europe or America. Allopathy is making the same mistakes as Kavirajes are doing, viz., the use of proprietary patents to mystify their patients.

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The practice of self-control, residence in a room protected from undue exposure, sleeping only at night, tepid water and moderate physical exercise always conduce to the better preservation of health.

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An intelligent physician, considering the nature of the disease, the strength and temperament of the patient, and the state of his digestion as well as the seat of the affection, the physical features of the country and the then prevailing season of the year, should prescribe a diet which he thinks the most proper and suitable to the requirements of the case. Since the conditions infinitely vary in the different types of diseases and even the same conditions do not obtain in one and the same type, physicians generally prescribe a diet of their own selection, determined with regard to its general effect on health, in preference to one that has been laid down in books of medicine.



## PURGATIVES IN AYURVEDA

BY

KAMALA KANTA SHARMA.

( Continued from May 1925 issue. )

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The Three Myrobalans.

हरितकी (Chebulic Myrobalan) acts directly in allaying *Vayu* irritation and as a rejuvenator and a powerful invigorating agent of the organs of sense on which it exerts a soothing effect. It is a destroyer of all diseases, specially of those following the use of sweet or richly cooked dishes.

आमलकी (Embelic Myrobalans) exerts a cooling and refrigerent influence and is a destroyer of *Pittam*, *Kapham*, and *Medam* (fat).

बिम्बितकी (Belleric Myrobalan) is mild in action and is a subduer of *Kapham* and *Pittam*.

These three fruits together are called the three myrobalans. The group is acid-astringent in taste and is slightly bitter and sweet.

Powdered *Trifala* one part taken regularly with clarified butter 3 parts prolongs youth and rejuvenates the system.\*

All other fruits of the purgative class may be administered in the way *Haritaki* is prescribed.

But regarding the administration of the fruit known as *Chaturangulam* (*Shondal*—*cassia fistula*), some special precautions should be observed. These fruits should be collected in proper season, and should be kept buried in a bed of sand. After a week take them out, and get them dry under the sun and collect the marrow-like substance obtainable inside the fruits. Then have them pressed in an oil-mill to extricate the essential oil. The oil can also be prepared by boiling the marrow in water and may be used safely as a mild purgative for children up to the 12th year.

*Chaturangulam* which is called *Aragbadha* or *shondal* is a very harmless mild purgative, and can safely be administered in fever, heart disease, haemoptysis, abdominal tympanites and colic, where *Vayu* and *Pittam* predominate.

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\* *Trifala* :—*Haritaki*  $\frac{1}{2}$  tola, *Bibhitaka*  $\frac{1}{4}$  tola,

*Amlaki*  $\frac{1}{2}$  tola. The stones are not to be used.



*A Mild purgative*

R/

- Pulverised कृष्ण ... (Alpotaxis auriculata)  
 ,, शुण्ठी ... (Dry ginger).  
 ,, पिप्पली ... (long pepper)  
 ,, मरीच ... (Black pepper).

aa. Taken in castor oil followed by a drink of hot water acts as a good purgative.

*A Purgative for Children, the aged and the Infirm.*

Castor oil is recommended to be taken with either the decoction of the three myrobalans, milk or meat juice. This mixture acts as a very mild purgative specially applicable to the weak, anemic, the old, the delicate and those suffering from cachexia, attended with or following sores or ulcers.

*Milky Exudations of Plants and Trees used as Purgatives.*

Of all such purgatives *Monasha-kshir* or the milky exudation of the *Sudha* plant possesses the most virulent action. Special care should be taken in its administration as when administered by the impudent quack it may kill the patient, while in the hands of an intelligent practitioner it allays many incurable ailments.

Prepare a decoction of the group of drugs known as "*Brihat Panchamula*" (see *Mahat Panchamulam* already detailed), *Brihati* (*solanum Indicum*) and *Kantakari* (*solanum Janthocarpum*) seven parts, and *Sudhakshir* cone part, boil the compound over charcoal fire. When ready, the medicine is administered in 2 tolas doses with either cream of curd, wine or sour rice gruel as already detailed while speaking of *Trivrit* compounds.

Saturate rice in the milky exudation of the *Sudha* plant and prepare a gruel in the usual way, which acts as a ready purgative. A porridge prepared of wheat treated in the above manner with the addition of clarified butter, milk and treacle, possesses purgative properties

*Sudhakshir*, sugar and clarified butter mixed together and licked in as a linctus acts as a purgative.

Pulverised round pepper treated in *Sudhakshir* and mixed with a little rock-salt is recommended as a purgative.



Pulv. *Kampillakam* (*Kamalagoori*) saturated with *Sudhakshir* dried and made out into boluses or powders is used as an effective purgative.

*A mild purgative for the delicate.*

R/

सप्तला	...	(a variety of <i>Sudha</i> called <i>origaum valgoris</i> )
शङ्खिनो	...	( <i>Kalmegha</i> )
दन्ति	...	( <i>Laghu</i> variety of <i>croton</i> root)
विवृत	...	( <i>Trivrit</i> )
आरगवधमञ्जा	...	( <i>Cassia fistula</i> . aa.)

Pulverise and saturate in cow's urine and then soak in *Sudhakshir* for seven consecutive days. Prepare a garland of flower or a piece of cloth strewn over with this powder. The use of either of these by a delicate person induces a mild movement of the bowels.

*An all-round purgative to suit all cases.*

R/

Pulv. Trivit	...	...	... 1½ tolas.
„ Trifala	...	...	... 1½ „
„ Baberang seeds	...	...	... ½ „
„ Round pepper	...	...	... ½ „
„ Carbonate of Potash	..	..	... ½ „

Mix well and prepare a *Modaka* or confection either with sugar and clarified butter or treacle and administer in required doses. This purgative does not necessitate any strict observance of diet and mode of living. It is very effective in allaying abdominal cysts, pelvic cellulitis, disinclination to food, intestinal worms and many other diseases arising out of the deranged condition of *Kapham* and *Vayu*.

All the preparations of purgative remedies from roots, barks, fruits and milky exudations of plants, as detailed above, should be carefully prescribed by the intelligent physician after a patient observation of each individual case with reference to the nature of the affection and its specific indications.

The intelligent physician mastering these details should prescribe and administer purgative drugs through the medium of clarified butter, sesamum oil, milk, wine, cow's urine, meat juice and other articles of dietary, according to the nature of the diseases and the condition and mental attitude of the patient.

The six kinds of purgatives detailed above are:—(1) milky exudation, (2) expressed juices, (3) pastes, (4) decoctions, (5) cold infusions and (6) powders of the medicinal drugs or herbs. Regarding their potency, the first is the strongest, while the following ones are gradually weaker.

Ref.—*Sushruta Samhita, Sutrasthanam, Chap. XLIV.*



# THE JOURNAL OF AYURVEDA.

## A BRIEF HISTORY AND OUTLINES OF AYURVEDA

BY

MAHAMAHOPADHYAYA KAVIRAJ

GANANATH SEN, SARASWATI, M. A., L. M. S.

(*Continued from P. 112.*)

—o—

So much for the Vedic period. Considering the vast fields covered by the Vedas, what we have been able to summarise above is only a birds'-eye view. Any one may find out hundreds of other informations from this fountain of world literature.

The legends connected with the origin and progress of Ayurveda during the Vedic period are interesting. They are briefly stated in the current works (e.g., Charaka, Sushruta) as follows. Brahma, the Creator of the universe, evolved the science of Ayurveda by meditation and taught Prajapati. He imparted it to the twin-gods Ashwins, who became the divine physicians. From them, the science descended to Indra, "the learned King of the gods". He instructed many Rishi pupils who approached him out of compassion to humanity. Of these—two pupils—the Sage Bharadwaj or Atreya and the Sage-King Divodas Dhanwantari of Benares became prominent instructors. The former started "the Atreya School" or the School of Physicians. The latter, the Ascetic King Divodas Dhanwantari (who is said to have been the incarnation of the Physician god Dhanwantari, originated the 'Dhanwantari School' or the School of Surgeons. This brings us from the legendary to the palpable period of Sage Authors.

### II THE PERIOD OF SAGE AUTHORS & ORIGINAL RESEARCH.

Of the two schools mentioned above the great exponents of the former school or the School of Physicians were the six disciples of Atreya. These were by name—Agnivesha, Bhela, Jatukarna, Parashara, Hareeta and Ksharapani—each of whom wrote a large comprehensive work known after his name on the Practice of Medicine. The exponents of the other School or the School of Surgeons were the disciples of Dhanwantari, the Ascetic King of Benares. These were among others, Sushruta Bhoja, Aupadhenava, Aurabhra, Vaitaran, Paushkalavata, Gopura-Rakshita, etc., each of whom wrote a compre-



hensive work on the Practice of Surgery and Midwifery. Some of these works are still available in a revised form and references from these and many other ancient works are still found to occur extensively in later compilations. All these authors may be said to have done real original work in the field of Medicine and Surgery.

As early as this or perhaps a little later, Ayurvedic practice became divided into eight specialised subjects :—

- (1) *Shalya* or Surgery and Midwifery (together).
- (2) *Shālakya* or Surgery of the Eye, Ear, Nose and Throat.
- (3) *Kāyachikitsā* or Practice of Medicine.
- (4) *Bhutavidyā* or Treatment of mental diseases (including the so-called obsessions).
- (5) *Kumara-bhritya* or Hygiene and Treatment of children.
- (6) *Agada-tantra* or Diagnosis and Treatment of Poisons,—vegetable, mineral and animal, including Snake-bite, Rabies, etc.
- (7) *Rasayana* or Hygiene and Preventive Medicine for the attainment of sound health, Longevity and Rejuvenation in old age.
- (8) *Vajeeekarana Tantra* or Sexual Science including Sexual Hygiene and Treatment of Sexual diseases.

From the records existing at the present day, it is clear that numerous original works on each of these specialised subjects existed over 700 years ago. They have been quoted from extensively by trustworthy commentators less than thousand years old and some of them still exist either in manuscript or in revised and printed form. Some are being unearthed even now (e. g., Bhela Samhita just published by the Calcutta University). A classified list of about fifty of these works is given below. As a general all-India search for manuscripts has not been made yet, it cannot be said that they are all lost. One point is particularly noteworthy in this connection. Numerous discussions including searching—even sceptic—questions on the properties of drugs and lines of treatment are yet to be found in some of the existing works like Charaka-Samhita showing that the sages of old did not sacrifice reason at the altar of divine inspiration nor stuck to any dogmas when such were unsupported by experience.



## List of the Ayurvedic Works by the Ancient Sages (2nd period).

### I ON KAYA-CHIKITSA TANTRA.

#### Works on the Practice of Medicine.)

1 *Agnibesha-Samhita*:—This work by Agnibesha, the chief disciple of Maharshi Atreya and is considered as the greatest work of the Atreya School of Medicine. The modern Charaka-Samhita is identified with Agnibesha-Samhita but is really a compilation or renovated edition of that work by Maharshi Charaka (about 2500 years ago) and subsequently by the Kashmiri Scholar Didhabala, according to clear admission in the text. Hence quotations of passages from Agnibesha-Samhita by Bejoy Rakshit, Shri Kanta Datta and other commentators are sometimes not found in the Charaka-Samhita. This no doubt points to the fact that either "Charaka-Samhita" is not Agnibesha-Samhita" or the book has undergone so much transformation due to revision and supplementation that in many places it does not bear out the original. Thus, it may safely be surmised that before the advent of Charaka, the original work of Agnibesha was in a frightfully mutilated condition and hence required a thorough revision and supplementing.

Many are of opinion that the book entitled "*Anjana Nidanam*" was compiled by Agnibesha. We do not find a single quotation from this book in the commentaries of Chakrapani, Bijoy Rakshit, Shrikanta Datta and others and the language does not quite follow the ancient Sanskrit style. It is probable therefore that the book was compiled by some other author of the same name at a later date. We cannot but admit however that its author knew his subject well and handled in a terse but masterly manner the pathology of diseases so as to make it intelligible even to the beginners.

2. *Bhela-Samhita*:—This is the second Samhita of the Atreya School of Medicine and quotations from it are found in the commentaries of Bejoya Rakshit, Shivadas and other annotators. This work was found in incomplete condition in the famous Library of Tanjore. The writer had the good-fortune of inspecting the original at Tanjore. The work has since been published in mutilated condition by the Calcutta University.

Many affirm that '*Bhela-Samhita*' and '*Bhaluki-Samhita*' are but two different designations of the same work. This view cannot be accepted as sound, as Dallanacharyaya mentions both of them in the same sentence in his commentary on Sushruta. We believe Bhaluki Samhita mainly deals with surgery and the reader is referred to the surgical section for further details.

(To be continued.)



## Works on Indian and Tropical Medicine

BY

**Dr. Girindra Nath Mukhopadhyaya Vishagacharya** B.A., M.D., F.A.S.B.

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# THE JOURNAL OF AYURVEDA

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NO 12.

## THE TRIDOSHA THEORY.

—o—

If at all Ayurveda has to play an important part in the future of Modern Medicine, it can be in only one way. It is by a scientific study of Ayurveda, to know how far the theories and practices of Ayurveda advance the modern knowledge and practice of the healing art. Science is quite independent of race feeling, and is above all considerations of bias and conservatism. It stands on the firm basis of eternal truth and inherent worth. We would not demand attention to Ayurveda on the plea of its divine inspiration, but we consider it deserving of due consideration as a store-house of knowledge bequeathed by the great thinkers and observers of yore, who laid the foundation of their science and art on truths arrived at either by intuition or by observation. Considerations of personal gain were not springs of action in their case. They were moved by genuine compassion for humanity. The clinical descriptions and theories of Hippocrates barely stand the scrutiny of modern scientific tests, but Ayurveda can give a fresh stimulus to the investigation of diseases in its ætiology and treatment. It does great credit to the ancient sages who worked without modern paraphernalia that their theories and practices hold their own even to this day. There can be little doubt that the ancient sages were great observers and profound thinkers. A hypothesis is a generalised terse statement which covers some of the observed facts; when it explains all the observed facts it becomes a theory. The *Tridosha Theory* of Ayurveda is believed to be capable of explaining all



observed facts with regard to the symptomatology, diagnosis and treatment, of all diseases that human flesh is heir to. Now the reasonable contention would be that this theory must stand the modern tests or there must be some alternative theory or theories to explain all the facts. The question would naturally arise, what will be the fate of the bacteriological theory if "*Tridosha*" theory is found to be correct. Another difficulty would arise as to whether Endocrinology is compatible with the "*Tridosha*" theory.

To have a clear insight into the subject, we have to consider first the causation of disease, which depends primarily on two main factors besides some auxiliary ones :—(1) the nature of the invading organism, and (2) susceptibility of the subject (vitality of the system invaded).

Modern Western Medicine would contend that the nature of the invading organism, how it grows and how it is transmitted, is of great importance in determining the causation of disease. Bereft of this knowledge we will be groping in the dark, especially while considering the causation of the epidemics, we ought to know how to stop their extension and how to prevent their recurrence. In short, the progress of preventive medicine stops short without the aid of Bacteriology and Parasitology. This, of course, leaves out the deficiency diseases or diseases of the metabolism and a few other diseases caused by errors in diet, etc. How then can the Ayurvedic theory of "*Tridosha*" help us in Preventive Medicine and Public Health questions? Our answer is that Ayurveda may help us much even in this way, if we can understand its deep philosophy and follow its principles of personal and preventive hygiene. Leave alone the treatment of diseases; the creation of a healthy mind in a healthy body is considered as the most important object in view by the Ayurvedist. He believes that this



alone can give immunity to invasion by extraneous organism giving rise to diseased conditions.

When we consider the question of susceptibility of the individual in modern medicine, we find our progress checked abruptly. When once the invading organism has gained a foothold, we are at a loss how to deal with it. The protective functions of the body, what people call the defences of nature, work in their own way (but how, we do not know fully) and cure many of the diseases. There are specific cures in modern medicine for about 12 to 15 diseases. But how to deal with the others? Modern medicine leaves the rest to Nature giving symptomatic treatment. In this fix, we should turn to Ayurveda, which tries to explain the workings of these protective functions. It is contended in Ayurveda that so long as these functions are kept up in their normal condition, the invading organisms are powerless to act. It is but too true. Tuberculosis is a great example illustrating the point. But it is inconceivable that all people will keep up to their proper diet, conduct and environment. Such an ideal state of thing has not been possible till now under the sun and so there are always individuals who become susceptible in every community.

In the West, with the improved sanitary conditions, water-supply and model dwellings, etc., certain improvements in the health of the nation have been effected. But there are far greater evils in alcohol, overwork, mental worry, godlessness, sudden variations in climatic conditions, social indulgences, etc, which are beyond the control of Nature or Government established by the people. These conditions lower the resistance and increase the susceptibility.

In the East, the conditions have been different until lately. There was less of over-work and worry in former times but the present struggle for existence and change in surroundings aided by impure water, scarcity of food



and water bad sanitation, squalor and poverty, early marriages, neglect of physical culture, the present methods of close school education, all increase the susceptibility of the people and lower their vitality. No wonder then that malaria, influenza, cholera, plague, etc., carry their usual tolls. So the question of susceptibility of the individuals in a community can not be shelved any longer and the remedy must be sought in fields not yet explored.

Now, can you control or guard against these invasions unless you are well acquainted with the protective functions of Nature? In modern medicine Immunology attempts to study these functions. It is here we find that Ayurveda excels Western Medicine. The ancient authors knew the existence of micro-organisms. Reading about Leprosy and Skin Diseases we find in *Sushruta* and *Bagbhata* a mention of the causative agents as small organisms invisible to the naked eyes, round and copper coloured, etc. They are said to circulate in the blood. In speaking of contagious diseases, *Sushruta* said, "They may be carried by the breath of an infected person; by the clothes, by contact, by eating from the same dishes, by even wearing the flowers used or worn by the patient." Leprosy fevers and consumption are stated to be transmitted in these ways.

Now if Ayurveda can contribute to the progress of Medicine in enabling us to understand the protective functions of the body, how does it do this? Here we find that Ayurveda assumed the existence of the three Doshas or principles. To call them humours will be a misnomer, To call them humours will limit their nature and application in the light of modern science. So it would not be wrong if we retain the word "Doshas" which include both physiological and pathological functions. Physiological, as they have to carry on the normal metabolic, excretory, digestive, nervous and circulatory processes, etc., and pathological, when one or more of them being in excess or



diminished or in an unnatural combination give rise to diseased conditions. The resulting disease is due to the irregularity of the *Doshas* which reduces the resisting capacity of the body. The idea is that if we set right the *Doshas* and bring them to their normal proportions, the disease will be cured. On this fundamental theory which is quite practical in as much as it deals with the properties of drugs in their action on the *Doshas*, Ayurveda gives the symptoms of the *Dosha* or *Doshas* deranged, by which we may find the particular derangement and treat accordingly. In modern science, diseases are named according to the causative agent as Leishmaniasis, Filariasis, but the authors of Ayurveda take the most prominent symptom and name the diseases by the symptom group and sub-divide them according to the particular *Doshas* usually deranged.

Now, if we want to take advantage of Ayurveda in the advancement of science we must know the nature of the *Doshas* and must go into a detailed study of the functions of these *Doshas*, first physiological and then pathological. No sane man would contend that modern science is all perfection so let us arrive at a clue by a study of Ayurveda.

A systematic study and a brief presentment of this subject has been written by the Hon. Editor-in-Chief of this Journal and the first instalment of it appears elsewhere in this issue. We hope they will be studied with keen interest.

A C. B.

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We take pleasure in announcing with thanks that the Government of Madras Local Self Government Department have sanctioned the purchase of the **Journal of Ayurveda** for the Indian School of Medicine.



## Original Articles.

### THE THEORY OF TRIDOSHA OR TRIDHĀTU

BY

MAHAMAHOPADHYAYA KAVIRAJ

GANANATH SEN, SARASWATI, M.A., L. M. S.

As the foundation of Ayurveda rests on this theory, I would endeavour, first of all, to explain the terms Vayu, Pitta and Kapha, as understood by Ayurvedic writers of old and then to explain the theory.

#### *The Meaning of Tridôsha or Tridhātu*

The Ayurvedist believes that all physiological functions are controlled by three principles which are, strictly speaking, called *Dhātus* when they are normal, and *Dôshas* when they are abnormal, the last expression being often used in a general sense.

*Vāyu* or life-force [from *Vá* (वा) to move]—The first of these, *Vāyu*, is the motive or dynamic principle, which causes the various visible and invisible motions in the body. It is born with the first cell which when impregnated begins to divide into many cells and becomes gradually organised through the differentiation of the cells into different structures. It creates blood-vessels, lymphatics and nerves and pervades the complex organism. This inherent cell-force manifests itself later on in the higher evolution known as nerve-force. But this nerve-force is not the whole connotation of *Vāyu* as some people understand. It is the differentiated or more crystalized form, as it were of *Vāyu* and is manifest only in higher forms of life. But the cell-energy persists in every cell. A man, for instance, grows a tumour. It becomes gradually organised; blood vessels and nerves and lymphatics grow into it. Gradually if it comes in contact with hard substances, a horny growth takes place on it. Who guides all these growths? It is this life-force, or cell-force, called *Vāyu*. (Cf. Greek *Bios* meaning life, as in Biology). This explanation

1. "उत्साहोक्तामन्यासवृष्टा धातुगतिः संसा ।

समो मीचो गतिमतां वायोः कर्माविकारजम् ॥"—*Charaka, Sutrasthanam*,

Chapter XVIII, V. 42.



is not my own invention. *Vāyu*, according to Charaka Samhita is 'the force that moves and holds all the functions of the body in equilibrium, "that manifests itself in different nerve-centres that "carry" sensation and motion, that control the digestion, the "circulation and the glandular and excretory activities. It causes the "differentiation of parts in foetal development. Its action manifests "itself also in the processes of intellection and feeling."² Thus it has been rightly said that "Vayu guides all functions pertaining to Pitta and Kapha, which are 'lame' without its lead".³ Such a conception of Vayu is not incompatible with the teachings of modern physiology'

*Pitta—The Consuming or Metabolic Principle.*

Pitta is the second principle. It is the principle which manifests itself in different forms in different chemical activities, mainly in alimentary digestion and general metabolism. Through certain chemical changes in the ingested food and in the tissues it helps the absorption and metabolism of the nourishment that is available to the body. As a result of this, it keeps up the equilibrium of heat in the body. It is therefore sometimes called "Agni (अग्नि) or fire."⁴ It occurs in a subtle imperceptible form, and in a crude form. The subtle form manifests itself in the various crude forms, e.g. secretions like gastric juice, bile, pancreatic juice, etc., and helps the digestion in and absorption from the alimentary tract. This is called "*Kaya-agni*" (कायाग्नि) or "*Jatharagni*" (जठराग्नि)—"the Alimentary Fire". There is another form of diges-

2. वायुस्त्वयन्तधरः, प्राणोदानसमानव्यानापानात्मा, प्रवर्त्तकश्चेष्टानामुच्चावधानां, नियन्ता प्रणेतारः मनसः, सर्वेन्द्रियाणामुद्योजकः, सर्वेन्द्रियार्थानामभिवोदा, सर्वशरीरधातुव्यूहकरः, समानकरः शरीरस्य, प्रवर्त्तको वाचः, प्रकृतिः स्पर्शशब्दयोः, श्रोत्रस्पर्शनयोर्मूलम्, हर्षोत्साहयोर्गन्धः, मनोरणोऽग्निर्दोषसंशोषणः क्षेमा वह्निर्मलानां स्थूलाणुस्रोतसां भेत्ता, कर्त्तागर्भाकृतौनां, आयुषोऽनुवृत्तिप्रत्तायभृतो भवत्यकुपितः ॥—*Charaka, Sutrasthanam, Ch. XII, 8.*

3. पित्तं पङ्कः कफः पङ्कः पङ्कवो मलधातवः ।

वायुना श्वेत नीयन्ते तव वर्षन्ति मेघवत् ॥—*Sharangadhar, Pt. I. Ch. V. 22.*

4. अग्निरेव शरीरे पित्तान्तर्गतः कुपितकुपितः श्माशुभानि करोति, तद्वया—पक्तिमपक्तिं दर्शनमदर्शनं मावासातत्वमूष्मणः प्रकृति-विकृतिवर्णौ शौथं भयं क्रोधं हर्षं मोहं प्रसादमिष्वेवमादीनि चापराणि दग्धादीणि ॥—*Charaka, Sutrasthanam, Chapter XV, 15. Vide also Sushruta, Chapter XV.*

5. जाठरी भगवानग्निरीश्वरीन्द्रस्य पाचकः ।

सौक्ष्मद्रसानाददानो विवेक्तुर्नैव शक्यते ॥—*Sushruta, Sutrasthanam, Ch. XXXV, 24.*



tion—the metabolism in the tissues which is carried on by the subtle form known as the *Dhatwagni* (धातुग्नि) or “the tissue fire.”<sup>6</sup> On the mental side, another form of the subtle substance (साधकपित्त) is said to circulate in the blood (as internal secretion?) and to influence the memory and mental contentment. Further, material for certain sensations is also *cooked* by Pitta. They say that at the end of the retina a chemical process takes place by which the image is imprinted for the time being on the sensitive surface. In western physiology, it is the photo-chemical substance—which is probably identical with what the Ayurvedist calls “*Alochaka Pitta*” (आलोचकपित्त). The colouring matter of the blood is also said to arise from the action of another form of *Pitta* known as “*Ranjaka Pitta*” (रञ्जकपित्त—Hæmoglobinogen?) that is said to exist in the spleen and liver(?). In one word therefore you can take *Pitta* as the one great principle which guides all chemical activities that are needed to sustain life.

#### *Kapha—the Cooling or Preservative Principle.*

I will next take up *Kapha* or *Sleshmā*, the Cooling or Preservative Principle. It is said that just as there is the consuming principle which keeps up the fire burning, there is another principle which keeps up a certain amount of coolness and preserves the tissues from burning away. This cooling principle keeps the body cool giving normal secretions which are preservative in their purpose. For instance, it always induces the secretion of a cooling or mucous substance in the mouth and nostrils, in the respiratory passages, in the eyes, in the stomach, in the joints, etc. Whenever there is friction, wherever there is chance of drying up, wherever there is heat-production, there comes in this principle manifesting itself in the secretion of preservative fluids.<sup>7</sup> As there are several forms of crude *Pitta* like gastric juice, bile and

6 समभिर्देहधातारो धातवो द्विविधं पुनः ।

यथास्वप्नप्रभिः पाकं यान्ति किङ्कप्रमादवत् ॥—*Charaka, Chikitsa*, Chapter XV, V-10.

7 सन्धिसंश्लेषणश्च हनरोपशमपूरणश्च हणतपणवलस्यैवैकतु श्लेष्मा पञ्चधा प्रविभक्त उदककर्म्मणानुग्रहं करोति ॥—*Sushruta, Sutra*, Chapter XV, 5.

And again—

सोम एव शरीरे श्लेष्मान्तर्गतः कुपिताकुपितः शुभाशुभानि करोति । तद्वयथा—दाढ्यं शैथिल्यमुपचयं कार्श्यं सुत्साहमालस्यं हृषतां क्लौषतां ज्ञानमज्ञानं बुद्धिं मोहमेवमादीनि चापराणि इन्दुदीनि ॥—*Charaka, Sutra*, Chapter XII, 16.



pancreatic juice, so also this principle is principally manifested in several tangible forms like epithelial and endothelial secretions, e.g., synovia, mucus, normal lymph, etc. These crude forms of *Kapha* known as "Rasaka", "Tarpaka", "Shleshaka", etc., are identical with mucus, synovia, normal lymph, etc. On the mental side too a subtle form of *Kapha* is said to circulate in the blood and produce a damping and cooling effect on the mind giving patience and power of inhibition so as to check the restlessness of *Rajas* the mental principle that urges to action and agility.†

*Disturbance of Tridhatu or Tridosha.*

Let us now consider some symptoms caused by the disturbances of Tridosha equilibrium. When one of these principles, for instance *Pitta*, is accentuated (पित्तवृद्धि) the subject feels heat all over his body; he feels burning sensation in the eyes and in the hands and feet; he desires cold baths and cold drinks; his digestion is upset—by over-secretion of acid in the stomach; a larger amount of bile is also secreted from the liver and the stools are deep yellow. In the whole system, there is evidence of increased combustion creating great hunger and thirst. On the other hand in failure of *Pitta* (पित्तचय), the patient's body temperature remains sub-normal; the gastric juice and bile and other digestive juices are secreted poorly; there is total anorexia. The indigestion is of a different type—that of deficiency. The food is passed undigested and the patient soon becomes anæmic partly through non-assimilation of food and partly through failure of '*Ranjaka Pitta*' (the original colouring principle of blood).

Take another instance—a man's *Kapha* principle is accentuated (कफवृद्धि). He is said to have caught a cold. His nasal mucous membrane secretes more than is necessary to keep it moist. The mouth becomes full of saliva. The stomach does not function properly and becomes full of mucus. The joints become somewhat turgid and painful with increased synovia. The patient feels great lethargy and lassitude. On the other hand, if this principle is on the wane (कफचय) the skin becomes rough and dry, there is increased heat and thirst with sleeplessness. The joints become dry and stiff through failure of synovia and the various mucous membranes become parched.

If one is suffering from derangement of *Vayu*, there is either general nervous debility or high nervous tension. In the

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† According\* to Ayurveda, *Rajas* is the mental principle of action and *Tamas* the mental principle of inhibition. These when deranged cause mental diseases.



first case, he finds himself weak and debilitated in all functions. He finds the secretory and excretory activities required for digestion and normal absorption below par. He finds his bodily and mental activity subnormal. Such a case is often called neurasthenia or nervous debility—the Ayurvedists call it *Vayu-kshaya* (वायुक्षय) or the waning of Vayu. Take the other case, say one of Hysteria. A girl gets violent contractions of the muscles of her hands and feet. She gets cramps and fits. Her vision and hearing may be more acute than normal. These are manifestations of *Vayu-Vridhhi* (वायुवृद्धि)—(the hyper functioning of Vayu).

The Ayurvedic physician instead of treating this or that symptom in such cases treats the deranged principle or principles. He wants to bring about the normal state of the *Doshic* principles in the body according to the therapeutic methods depending on the theory of Tridosha.\* The subject is such that a much longer discourse will be needed to deal with all the symptoms of Kshaya (waning) and Vridhhi (waxing) of the three principles in different phases and with the pathological and therapeutic laws which are based on the working of these principle. But I hope it will be clear from what little I have said above that this theory of Vayu and Pitta and Kapha is not merely speculative but is highly practical from the view-point of the Ayurvedist, with whom, it is the key-note of all physiological functions. When one thoroughly grasps this theory, many intricacies of the symptoms of diseases will not only become intelligible to him but will also be amenable to his methods of treatment. This is every day experience.

### *The Theory of Tridôsha enunciated.*

The theory may be summarised thus in three aspects :

#### A. *The Physiological Aspect.*

1. There are three principles (called Dhatus or Dôshas known as *Vayu*, *Pitta* and *Kapha* which guide all physiological functions.<sup>9</sup>

8. जीणा वर्द्धयितव्याः, वृद्धा ऋणयितव्याः, समाः पालयितव्याः ।—*Sushruta*.

9. नित्याः प्राणभृतां देहे वातपित्तकफास्तयः ।

विकृताः प्रकृतिस्था वा तान् बुभुक्षेत पण्डितः ॥—*Charaka, Sutra*, Ch. 18, 41.

सर्व एव खलु वातपित्तकफाणः प्रकृतिभूताः पुरुषस्योपपन्नैर्द्रव्यैः बलवर्धनसुखोपपन्नमायुषा महतोपपादयन्ति ।—*Charaka, Sutra*, Chapter XXII, 17.



2. The maintenance of their equipoise or equilibrium means health.<sup>10</sup>

3. The disturbance of their equipoise or equilibrium leads to disease through perversion of physiological functions except in the case of 'Agantu' diseases (i. e., those caused by trauma, poisoning, etc.) where the disturbance comes later.<sup>11</sup>

#### B. The Pathological Aspect.

1. The etiological factors described hereafter disturb the equipoise of the Doshas (or principles) according to definite laws and the abnormality manifests itself either in the waning (क्षय) or the waxing (वृद्धि) of the principle (or principles) deranged according to the nature of these factors.<sup>12</sup>

9. वातपित्तश्लेष्माण एव देहसम्भवहेतवः । तैरेव अस्यापन्नैरधोमध्योर्ध्वमन्निवष्टैः शरीर-  
मिदं धार्यते अगारमिव स्थूणाभित्तमिरतस्तत् विस्थूणमाहरेके ॥—*Sushruta*,  
*Sutra*, Chapter XXI, 2.

विकृताविकृता भ्रान्ति शरीरं वर्तयन्ति च ( *Astangahridayam*, *Sutra*,  
Chapter 1, V )

विमर्गादानविक्षेपैः सोमसूर्यानिना यथा ।

धारयन्ति जगद्देहं कफपित्तानिला सप्त ॥—*Sushruta*, *Sutra*, Chapter XXI, 8.

सर्वशरीरचराः खलु वातपित्तश्लेष्माणः सर्वस्मिन् शरीरे

कुपिताकुपिताः शुभाशुभानि कुर्वन्ति ॥—*Charaka*, *Sutra*.

10. विकारो धातुवैषम्यं साम्यं प्रकृतिरुच्यते ।—*Charaka*, *Sutra*, Chapter IX, 3.

य एव देहस्य समा विद्वद्देहं त एव दोषा विषमा वधाय ।—*Astanga-Hridaya*,  
Chapter XI.

11. सर्व एव विकारा निजा नान्यत्वात् वातपित्तकफेभ्यो निर्वर्तन्ते ।—*Sushruta*, *Sutra*,  
Chapter XIX.

स्वधातुवैषम्यनिमित्तज्ञाये विकारसंघा बहवः शरीरे ।

न ते पृथक् पित्तकफानिलेभ्य आगन्तवस्त्वेव ततो विशिष्टाः ॥—*Charaka*, *Sutra*,  
Chapter XIX, 15.

आगन्तुर्हि व्यथापूर्वमुत्पन्नो जघन्यं वातपित्तश्लेष्माणं वैषम्यमापादयति ।

निजे तु वातपित्तश्लेष्माणः पूर्ववैषम्यमापयन्तो जघन्यं व्यथामभिनिरवर्तयन्ति ॥  
*Charaka*, *Sutra*, Chapter XX, 5.

12. दोषा एव हि सर्वेषाम् रोगाणामेककारणम् ।—*Astangahridaya*, *Sutra*,  
Ch XII, 30.



2. The abnormal condition of each of the three principles gives rise to definite symptoms in special areas or on the general conditions which show clearly which principle is deranged and how it is deranged.<sup>13</sup>

When the abnormal condition persists, definite changes occur in the particular tissues (दूष्य) concerned as the result of the affection of areas (स्थानसंश्रय) causing pathological changes (दूष्यविकृति) in them. The condition has been divided into six stages. † In the case of trauma and other extraneous causes, the pathological condition comes first and the derangement of the *Doshas* follow leading to further similar changes.

### C.—The Therapeutic Aspect.

1. All substances—food, drugs, exercise etc., have certain properties (गुण) which act on the three principles

यथाबलं यथास्वच्छं दोषा वृद्धा वितन्वते ।

रूपाणि, जहति चीणाः, सप्तः स्वं कर्म कुर्वते ॥

चयः स्थानं च वृद्धिश्च विज्ञेया त्रिविधा गतिः ॥

—*Astangahridaya, Sutra, Ch. XI, 44.*

13. These symptoms have been enumerated briefly in the following texts :—

वातचये मन्दचेष्टतालपवाक्तामः प्रहृषो मूढसंज्ञताच । पित्तचये मन्दोष्माग्रिता निष्प्रभत्वञ्च ।  
श्लेष्मचये रुक्षतान्दार्ढ्यं आमाशयेतराशयेद्यानां युन्यता सन्निशैथिल्यं तथा दीर्घत्वञ्च ।  
प्रजागरणञ्च ।—*Sushruta, Sutra, Chapter XV, 9* Also वातवृद्धौ त्वक्पाक्यं काण्ठ्यं काश्यं गावस्फुरणसुण्यकामिता निद्रानाशोत्पलवत्वं गाढवर्णस्त्वञ्च ।  
पित्तवृद्धौ पीताभसता सन्नापः शीतकामित्वमल्पनिद्रता मूर्च्छा बलहानिरिन्द्रियदीर्घत्वञ्च ।  
श्लेष्मवृद्धौ शौक्लां शैत्यं स्थैर्यं गौरवमवसादस्तन्द्रा निद्रा सन्निविशेषश्च ॥—*Vide also Charaka, Sutra*, where these symptoms have been enumerated in extenso.

† These six stages are known as (1) सञ्चय or the stage of gathering strength, (2) प्रकोप or the explosive stage, (3) प्रसर or the stage of extension (4) स्थानसंश्रय or the affection of particular areas, (5) व्यक्ति or morbid tissue-changes in such areas, (6) भेद, or the climax stage when the disease is well established and calls for urgent measures, e.g., surgical interference, etc. The symptoms of all these conditions will be found elaborately described in *Sushruta, Sutra, Chapter XXI*.



in definite ways. In the case of food and drugs, the effect varies according to taste, (रस) the chemical changes undergone in the alimentary tract (विपाक), immediate constitutional effect (वीर्य), e. g., feeling of internal heat and specific action (प्रभाव) on the constitution generally and on diseased conditions.<sup>14</sup>

2. The ultimate goal of treatment is restoration of the equipoise or equilibrium of the three principles (दोष) and of the tissues (द्रव्य) by the employment of food, drugs, exercise, enemata, etc. as are known to act (a) either against the deranged principles (हेतुविपरीतचिकित्सा) or (b) against the diseased condition particularly by specific actions (व्याधिविपरीतचिकित्सा) or (c) against both (हेतुव्याधिविपरीतचिकित्सा). The remedial agents employed are sometimes similar in nature to the deranged principle or to disease-symptoms or to both (e.g., hot application for inflammation, purgatives in dysentery, etc). This is called (विपरोतार्थकारिचिकित्सा ।)

3. The preservation of health (Preventive Medicine) mainly depends upon the maintenance of this equipoise by suitable food, air, exercise and the other measures recommended for health (स्वस्थवृत्त) as—daily and seasonal routines (दिनचर्या & ऋतुचर्या), Brahmacharyya (व्रह्मचर्य) or sexual continence, etc. These measures include the occasional use of particular kinds of food and modes of living and remedial agents to counteract the normal variations of the *Doshas* according to daily and seasonal disturbances (e.g., the use of laxatives in Autumn when Pitta is deranged).

14. For instance, substances with sweet, sour or salt taste subdue Vayu; those with astringent, sweet and bitter taste subdue Pitta; those with astringent, pungent and bitter taste subdue Kapha; and so on. The specific action (प्रभाव) of certain substances, however, always predominates over their general effect on the *Doshas* and is very important in the case of certain drugs. For details of the subject, vide Sushruta, Sutra, Chs. 40, 41 and 42; also Vagbhata (वाग्भट), Sutra, Chs. 1, 9 and 10, and Charaka, Sutra, Chap. XXVI.



## VEGETABLE DRUGS IN AYURVEDA.

## THERAPEUTICS OF ARJUNA,

BY

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## SYNONYMS:

SANS: Kakuva, Nadisarjja, Indradru, Beerabriksha, Beera, Dhavala. Arjuna-nau a, Sathadruma, Hridrogabairi (*Madan Pal*).

HIND: Khôa, Kauha;

MARHATTI: Arjun, Sadhara and Saradhol.

BENG: Arjun.

CANARESE: Tangromandi.

GUJRATI: Kadoa.

TELEGU: Matichettu.

ASSAM: Arjun.

LATIN: Terminalia Arjuna.

HABITAT: It is available almost in all parts of Bengal, the United Provinces, Central India, Southern India and Ceylon. It is a big-sized tree with brownish white bark.

PARTS USED: The thick bark specially of very old trees are preferred. It has an agreeable astringent taste. Leaves are also used in certain cases.

CHEMICAL COMPOSITION: The bark contains about 15% tannin and the ash of the bark contains 34% of almost pure calcium carbonate.

## USES IN AYURVEDA.

Several passages from different writers are quoted here as to its therapeutics:—

ककुभः शीतल भग्नक्षतक्षय विषास्रजित् ।

मेदोमेह व्रणकफपित्तहृद्दोगहतसरः ॥

—MADAN PAL.

*Kakuva* is cooling, laxative, and is useful in wounds, ulcers, contusions, promoting union of fractures, fattiness, heart-disease, urinary troubles, and diseases of *Kapha* and *Pitta* type. BHAVA-PRAKASHA speaks of Arjuna in the identical strain:

ककुभः शीतलो हृद्यः क्षतक्षय विषास्रजित् ।

मेदो मेहव्रणान् हन्ति तुवर कफपित्तहृत् ॥



RAJABALLAVA speaks of the bark as :

पार्थः पथ्यः क्षते भग्ने रक्तस्तम्भनकृच्छुर्यो ॥

Partha (Arjuna) is beneficial in ulceration, fractures, hæmoptysis and strangury.

RAJA NIGHANTU speaks of it as :

अर्जुनस्तु कषायोष्णः कफघ्नो दूग्णशोधनः ।

पित्तशमनत्वपित्तिघ्नो मारुतामय कोपनः ॥

Arjuna is astringent and heating in action, a destroyer of *Kapham* and corrects ulcers as an antiseptic. It cures thirst, and is indicated in the derangements of *Kapham*, *Pittam* and *Vayu*.

In the treatment of hæmoptysis CHARAKA prescribes pulverised Arjuna-bark internally along with equal quantity of pulverised red-sandal wood, sugar and rice-water. Externally its leaves are recommended for covering ulcers and sores.

BAGBHAT speaks of an ointment prepared of Arjun-bark and honey as useful in acne.

SUSHRUTA found the decoction of Arjuna-bark and white sandal wood, prepared in the usual way, effective in spermatorrhœa, and HARITA recommended its decoction in gonorrhœa.

In strangury BAGBHAT advises the administration of the decoction of the bark.

The bark was also found effective in the treatment of diarrhœa, dysentery and sprue. The bark, well pounded with goat's milk and administered with the same *Anupana*, stops the blood in dysentery.

CHAKRADATTA : Of all the Ayurvedic authors CHAKRADATTA made the most of this drug, as he recommended it in various diseases such as dysentery heart disease, fracture and debility.

The following preparation is recommended in heart disease :—

Bark of Arjuna	...	2 tolas
Cow's milk	...	4 oz.
Water	...	12 oz.

Boil till the water is evaporated and administer.

In *Garûda Purana* we find a passage where a decoction of "अर्जुनस्य त्वचासिद्धं क्षीरं योज्यं हृदामये"—where a decoction of Arjuna bark prepared in milk is recommended in diseases of the heart.

In our experience we have found it very effective if administered daily every morning on empty stomach in the following manner :—

Thick bark of Arjuna	...	¼ tola.
Cane sugar	...	2 tolas.
Cow's milk (boiled)	...	8 oz.



The bark should be well pounded and mixed with milk and sugar and administered. Numbers of heart cases with complicated symptoms, such as endocarditis, mitral regurgitation, pericarditis, Angina, showed rapid improvement in every respect when placed under this treatment for some length of time and a regular use for a year entirely removed all distressing symptoms.

Pulv. Bark is also recommended to be used with Cow's ghee and sugar in heart disease.

In fractures CHAKRADATTA advises the use of pulverised Arjuna-bark with milk and ghee.

In treatment of Phthisis the author of BHABAPRAKASHA eulogises the merits of the following preparation :—

Pulverised Arjuna-bark should be soaked and dried seven times successively in the juice of Basaka-leaves (*adhatoda Basaka*), and should be administered as a linctus well mixed with honey, sugarcandy and cow's ghee. It stops the blood in the sputum and clears up the sores and cures them. We use this mixture as an *Ana pana* in the treatment of consumption along with reduced minerals, such as pearl, coral, gold, lead and mica. In many cases the effect was very encouraging.

Khory in his *Materia Medica of India*, speaks of Arjuna-bark as follows :

"Astringent and Tonic, given in Heart Disease. Locally used as a wash for wounds, ulcers, contusions and especially used in promoting union of Fractures and dispersion of Ecchymosis, Internally largely used by the natives in Hemorrhagic and other Fluxes and are Lithotropic."

We would request our brother practitioners to try fresh thick bark from very old Arjuna trees administering it as instructed above in diseases of the heart, whether functional or organic and note the result; and then report the result through the medium of this Journal for the benefit of the suffering humanity.

There are several preparations of Arjuna amongst which may be noted *Nagarjunabhra*, *Parthyadyarista* and *Arjuna ghrita*. These are largely used in the treatment of heart diseases, but my personal experience is that the fresh bark administered as above suits all cases and proves effective within a short time. Along with this preparation, *Makaradhwaja*, mica (not less than 500 touch) or gold *Bhaskma* may be prescribed with benefit.



## MEDICAL JURISPRUDENCE IN AYURVEDA

BY

DEVAPRASAD SANYAL, L M S.

*Lecturer on Medical Jurisprudence at the Ayurvedic College.**(Continued from page 300.)*

## III.

I have already said that a system of legal medicine existed in ancient India and medical knowledge was frequently resorted to for legal purposes. The system of legal medicine which existed in those days was rather crude in comparison with the present system of medical jurisprudence; but it must be noted that several centuries before Christ the sages of ancient India understood the importance of the subject and tried to apply medical knowledge to legal principles—in aid of the administration of justice.

In the Arthasastra of Kautilya, ascribed to the fourth century B. C., we have undoubted evidence that there was arrangement for post-mortem examination in cases of suspicious and sudden death. Thus in the Arthasastra (Chapter VII, Book IV) we have the following text :—

आशुमृतकं परोक्षा । *(Post-mortem examination—  
medico-legal.)*

“तैलाभ्यक्तमाशुमृतकं परोक्षेत् ॥

निष्कर्णमूत्रपुरीषं वातपूर्णकोष्ठत्वक्कं शूनपादपाणिमुन्मौलिताक्ष  
सव्यञ्जनकण्ठं पौडननिरुद्धोक्त्वासहतं विद्यात् ॥

तमेव सङ्कुचितवाहसक्थिसुदन्धनहतं विद्यात् ॥

शूलपाणि पादोदरमपगताक्षमुद्धृतं नाभिमवरोपितं विद्यात् ॥

निस्तब्धस्तदाक्ष सन्दष्टजिह्वामध्मातादरमुदकहतं विद्यात्

शोणितानुसिक्तं भग्नभिन्नगात्रं काष्ठेरस्मिभिर्वा हतं विद्यात् ॥

सन्धग्नस्फुटितंगात्रं विक्षिप्तं विद्यात् ॥

श्यावपाणिपाददन्तनखं शिथिलमांसरोमचर्माणं फेनोपदिग्ध  
मुखं विषहतं विद्यात् ॥



तमेव सशोणितदंशं सर्पकोटहतं विद्यात् ॥  
 विक्षिप्तवस्त्रगात्रमतिवांताविरिक्तं मदनयोगहतं विद्यात् ॥  
 अतोऽन्यतमेन कारणेन हतं हत्वा वा दन्तभयादुदन्तं निक्षिप्त-  
 कण्ठं विद्यात् ॥  
 विषहतस्य भोजनशोषं पयोभि परीक्षेत ।  
 हृदयादुदत्याग्नौ प्रक्षिप्तं चिटचिटायदिन्द्रधनुर्वर्णं वा विषयुक्तं  
 विद्यात् ॥  
 दग्धस्य हृदयमदग्धं दृष्ट्वा वा तस्य परिचारकजनं वा दन्त-  
 पारुष्यादतिमार्गेत ।  
 दुःखोपहतमन्यप्रसक्तं वा स्त्रोजनं दायनिवृत्तिस्त्रोजनाभि-  
 मन्तारं वा बन्धुम् । तदेवोदन्तस्य परीक्षेत ॥  
 स्वयमुदन्तस्य वा विप्रकारमयुक्तं मार्गेत ॥  
 सर्वेषां स्त्रीदायाददोषः, कर्मस्पर्धा प्रतिपक्षद्वेषः  
 पण्यसंस्थासमवायो वा विवाद पदानामन्यतमद्वा रोषस्थानं ;  
 रोषनिमित्ता घातः ॥

#### EXAMINATION OF SUDDEN DEATH

"In cases of sudden death, the corpse shall be smeared over with oil and examined.

"Any person whose corpse is tainted with mucus and urine, with organs inflated with wind, with hands and legs swollen, with eyes open, and with neck marked with ligatures may be regarded as having been killed by suffocation and suppression of breathing.

"Any person with contracted arms and thighs may be regarded as having been killed by hanging.

"Any dead person with swollen hands, legs, and belly, with sunken eyes and inflated navel may be regarded as having been killed by hanging.

"Any dead person with stiffened rectum and eyes, with tongue bitten between the teeth, and with belly swollen, may be considered as having been killed by drowning.

"Any dead person, wetted with blood and with limbs wounded and broken may be regarded as having been killed with sticks or ropes.



" Any dead person with fractures and broken limbs, may be regarded as having been thrown down.

" Any dead person with dark-coloured hands, legs, teeth and nails, with loose skin, hairs fallen, flesh reduced, and with face bedaubed with foam and saliva, may be regarded as having been poisoned.

" Any dead person of similar description with marks of a bleeding bite, may be considered as having been bitten by serpents and other poisonous creatures.

" Any dead person, with body spread and dress thrown out after excessive vomiting and purging, may be considered as having been killed by the administration of the juice of the *madana* plant.

" Death due to any of the above causes is, sometimes under the fear of punishment, made to appear as having been brought about by voluntary hanging, by causing marks of ligature round the neck.

" In death due to poison, the undigested portion of meal may be examined in milk. Or the same extracted from the belly and thrown on fire may, if it makes 'chitchita' sound and assumes the rainbow colour, be declared as poisoned.

" Or when the belly (Hridayam) remains unburnt, although the rest of the body is reduced to ashes, the dead man's servants may be examined as to any violent and cruel treatments they may have received at the hands of the dead. Similarly such of the dead man's relatives as a person of miserable life, a woman with affections placed elsewhere or a relative defending some woman that has been deprived of her inheritance by the dead man may also be examined.

" The same kind of examination shall be conducted concerning the hanging of the body of an already dead man.

" Causes such as past evils or harm done to others by a dead man, shall be inquired into regarding any death due to voluntary hanging.

" All kinds of sudden death, centre round one or the other of the following causes :—

" Offence to women or kinsmen, claiming inheritance, professional competition, hatred against rivals, commerce, guilds



and any one of the legal disputes, is the cause of anger ;  
anger is the cause of death."

*Kautilya's Arthashastra—Translation by R. Shamasastry, B.A., M.R.A.S., Librarian, Government Oriental Library, Mysore.*

The Post mortem examination was gradually made soon after death smearing the dead body with oil. They also used to preserve dead bodies in oil—sometimes for purposes of cremation and sometimes for purposes of post mortem examination if it were not possible to do it soon after death. We have in the Ramayana :—

“तैलद्रोण्यां तदामात्याः संवेश्य जगतोपतिम् ।

राज्ञः सर्वाण्यथादिष्टाश्चक्रुः कर्माण्यनन्तरम् ॥”

( रामायणम् ; अयोध्याकाण्डम् ; ६६३मः सर्गः )

“ Then the ministers, as directed, (by wise sages such as Vashista and others) placed the king in a tub full of oil and afterwards they observed other necessary ceremonies.”

( To be continued ).

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The current issue completes the first year of the life of the *Journal of Ayurveda*, and we would request our constituents to remit early the amount of their advance annual subscription for the next year.

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A. C BISHARAD,  
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## ASTHMA IN AYURVEDA

ASHUTOSH ROY L. M. S., HAZARIBAGH.

*( Continued from our last issue ).*

—o—

I. OTHER PREPARATIONS ALLIED TO THE ABOVE CONTAINING  
BOTH VEGETABLE AND INORGANIC DRUGS.1. *Basanta Tilak Rasa.*

R/.

Musk and Camphor—cardiac stimulant

Gold—nervine

Iron and Mica—haemotonic

Makaraddhaj—alterative

Tin—diuretic

Burnt Pearl and Coral—stimulant antacid

with juice of Gokhur (*Tribulus Terrestris*)—diuretic

Sugarcane juice—diuretic

Vasak—expectorant

In dyspepsia of Phthisis and other grave conditions in weak subject.

The above with Iron pyrites and Silver is known as Brihat Basanta Tilak Rasa.

Note :—Regarding the administration of Musk and Camphor, it may be noted that Camphor is to be given alone and Musk avoided if the patients' Vayu becomes "rukshma" (too much irritated—"arthritic diathesis" and secretions are less in quantity) ; on the other hand in condition of exudative diathesis, e.g, severe coryza, musk is always to be preferred to camphor and may be given in combination.

2. *Brihat kaphaketu.*

R/

Gold

Pearl and Coral burnt.

Mica.

Makaraddhaj.

Make into pill with mother's milk.

This is a simpler prescription in Swasa of children with irregular pulse and cold extremities.



3. *Sleshma Sundar Rasa.*

R/

## Gold and Silver.

## Iron and Pyrites.

### Mercury and Sulphur.

Burnt Pearl.

Makaraddhaj.

Trikatu.

4. *Maha-Lakshmibilas.*

R/

### Mercury and Sulphur.

### Iron and Mica.

Tin

Harital (arsenic)

Copper.

Aconite.

Camphor.

Nutmeg and Mace (carminative)

with pulv. seed of Bridha darak (*Gmelina asiatica*) } cerebral  
of Dhatura } stimulant.

rub with Betel-leaf juice—good in Vayu-Kapha.

5. *Tarunananda Rasa.*

It contains :—

Alternative—*Hg* and *S* as black sulphide of mercury or kajjali  
Bhuikumra (*Ipomea Digitata*)

Specific to check vayu—Brihat Panchamul.

Astringent—Barella (*S. cordifolia*), Amlaki (*E. myrabolan*)

Diaphoretic—mutha (C. Rotundus)

Diuretic—Satamuli (*A. Sarmmentosus*)

Expectorant—Brihati (S. Indicum) and Vasak, Talispatra.

Antibilious—Punarnava.

Cardiac stimulant—Camphor.

Carminative—nutmeg and mace, cardamom and cloves.

Antispasmodic—Jatamansi (valerian l.)

Good in children as the name indicates.

ALLIED PREPARATIONS-- FOOD IN SWASA WITH FEVER.

1. *Kaphaketu Rasa.*

R/

Burnt Borax and conch-shell (antacid)

Aconite—antifebrile.

L. Pepper and juice of ginger—carminative.



2. *Mrityunjay Rasa.*

R/

Mercury and Sulphur.

Burnt Borax.

Long and black pepper.

Aconite.

3. *Chandramrita Rasa.*

It contains :—

Carminatives—Trikatu, Piper chava, Black pepper,  
Coriander, Carraway.

Laxative—Triphala.

Digestive—Rock salt.

Antacid—Burnt Borax.

rubbed with juice of :—

Expectorant—Bamanhati, Kantikari

Diaphoretic—Mutha

and Goat's milk—good in Kapha disease or exudative (*e. g.*  
Phthisis, Diarrhœa).4. *Brihat Chandramrita Rasa.*

R/

Mercury and Sulphur

Mica and Iron

Camphor

Copper

Gold

with the vegetable drugs :—

Nervine stimulant—Bridhadarak seed (*G. Asiatica*)

Carminative—Carraway, Cloves, long Pepper.

Alterative—Bhuikumra (*I. digitata*)Diuretic—Satamuli (*A. Sermentosus*)Antibilious—Kulakhara (*Hygrophile asiatica*)Astringent—Barella (*S. cordifolia*)Cerebral stimulant—Dhatuara (*D. stramonium*)

Fragrant antiseptic—Dhuna (Gum resin)

add honey

5. *Surjyabarta Rasa.*

R/

Mercury and Sulphur.

rub with juice of Ghritakumari (*Aloe Indica*)—laxative.

add copper



Debdaru (Pinus Deodaru)—antiseptic expectorant.

Trikatu—carminative.

Root of Rakhalsasa (citruhes colocynthus)—Laxative, sugar.  
good if associated with constipation.

6. *Brihat Kasturi Bhairab.*

R/

Gold and Silver.

Musk and camphor.

Copper.

Mica.

Arsenic.

and the following vegetables :—

Astringent—Dhai Phul (woodfolia floribunda), Aknadi  
(cissampelos Pareira), E. myrabolan.

Stimulant—Dried seed of sim (Conavalia Eusiformis) or seed  
of Alkusi (mucuna Pruriens) and Bata (Pavonia  
odoretta).

Anthelmentic—Viranga (Embelia Ribes).

Diaphoretic—Mutha (C. Rotundus).

Carminative—ginger.

In dyspnœa with fever, collapse. delirium, etc.

7. *Maharaj B ti.*

R/

Mercury and Sulphur

Mica and Iron

Tin.

Gold or Iron Pyrites.

Copper or Silver (if diarrhœa)

Camphor or Musk (if much corryza) and the following  
vegetables..

Nervine seed of Bridhadarak (G. Asiatica)

Cerebral stimulant—seed of Dhatura (D strammonium)

Dried seed of Sim (C. Ensiformis)

Diuretic—Satamuli (A. Sarmentosunus)

Carminative—Cloves, Nutmeg and Mace.

Astringent—Barella (S. cordifolia)

Goruk chakulia (S. spinosa)

Antibilious—Kulakhara (H. Spinosa)

Alterative—Bhuikumra (I. Digitata)

Talmuli (Curculigo orderides).



8. *Bijaya Bati*.

R/

Mercury and Sulphur, Iron and Mica, Copper  
and the following vegetables :—

Antifebrile—Aconite.

Anthelmintic—Viranga (E. Ribes).

Carminative—Rumka (P. aurantiacum), Cardamom root of  
L. Pepper, Trikatu, Chita.

Laxative—Triphala croton

Fragrant—Nageswar (mesua Fera)

Diaphoretic—mutha (C. Rotundus)

K. ALLIED PREPARATIONS CONTAINING IRON.

1. *Jvarasani Louha*.

R

Mercury and Sulphur—alterative and antiseptic

Iron and Mica—Hæmatenic

Rock salt—Digestive

Aconite—Antifebrile

Copper—Emetic and Laxative

Pulv. Black pepper—Carminative

Nishinda (vitex Negundo)—Emetic

In Vayu-Kapha variety of "swasa" with fever and much  
Phlegm in chest.

2. *Pippaladya Lauha*

Iron—Hæmatenic

L. pepper—Carminative

E. myrobalan—Laxative

Dried ginger—Carminative

Liquorice—Laxative

Inside of seed of plum—Laxative

Pushkar (root)—Aromatic stimulant

In Vayu-Pitta Asthma with constipation.

3. *Mahaswaswari Lauha*

Iron and Mica—hæmatenic

Triphala

Liquorice

Dried Raisins

Inside of seed of plum

Long pepper

Cardamom

} ... laxative

} ... carminative



Bamboo manna	}	... expectorant
Talispatra		
Viranga—anthelmentic		
Kur—aromatic stimulant		
Nageswar—fragrant		
Sugar	}	... food
and		
Honey		

#### L. ALLIED PREPARATION CONTAINING MICA.

##### 1. *Jvarari Abhra.*

R/.

Mica  
Copper  
Mercury and Sulphur  
Aconite  
Dhatu seeds  
Trikatu

In Vayu-Pitta Asthma with fever.

##### 2. *Dameswar Abhra.*

It consists of—

Haematenic—Mica  
Carminative—P. Chava, P. Zeylanica, P. Longum.  
Expectorant—Bamanhati, Vasak  
Bitter—Ghora Neem (*melia azadrach*)  
Cerebral stimulant—Dhatu  
Diuretic antifebrile—Gulancha  
Laxative—Kalkasunda (*cassia saphora*)

In Vayu-Kapha Asthma.

##### 3. *Kanchanabhra.*

Gold and Silver  
Rasasindura (Sulphide of mercury—red)  
Pearl and Coral burnt—antacid, stimulant  
Iron and Mica—Haematenic  
Musk—Stimulant  
Realgar (arsenic)—Do. antifebrile  
E. Myrobalan—Laxative

In dyspnoea of Phthisis.



4. *Brihat Kanchanabhra.*

It contains gold and silver, copper, tin, iron and mica, pearl and coral, Rasasindur, Baikranta, musk, cloves and mace.

Elabaluk (anthelmentic)

Rub with the juice of

Kessur—(kyphus kysoor)—sedative

Ghritakumari (Aloes) laxative

Goat's milk

in dyspnœa of Phthisis and Prameha.

5. *Kalyansundar Abhra.*

It contains besides mica the following vegetable drugs :—

Laxative—Juice of Bael-leaf

Astringent—Amlaki (E. myrobalan)

Barella (S. cordifolia)

Sona (oroxylum Indica)

Diuretic—Satamuli (A. Sarmentosus)

Sugarcane juice

Parul (stereospermum suavasens)

Diaphoretic—mutha (C. Rotundus)

Bitter—Ganiari (Pruna spinosa)

Expectorant—Til (sesamum Indicum)

Vasak and Kantikari

Fragrant antiseptic—Bala (Pavonia odorata)

M. Medicated molasses or sugar comparable to preparations of malt of West.

1. *Bhargigur.*

Dasamul—Check Vayu-Kapha.

Bamanhati—Expectorant

E. Myrobalan—Astringent

Trikatu

Cinnamon

Cardamom

Cloves

} Carminative

Jabakshar—Laxative

Basis—Old molasses and honey.

2. *Bhargi Sarkara.*

Root of Bamanhati, Vasak, Kantikari—Expectorant.

Meat of Bat—Checks Vayu-Kapha

Guratwak (C. Zeylanica)

Trikatu—Cinnamon—Carminative



Bach (acorus catanus)

Nageswar—(Mesua Ferra) fragrant, gastric sedative

Triphala—Laxative

Mutha—Diaphoretic

Gokhur—Diuretic

Talispatra—Expectorant

Basis—Sugar.

M. Medicated ghrita (animal fat) comparable to preparations of cod liver oil in the West.

1. *Dasamulchatpalak Ghrita.*

R/

Dasamul Check Vayu-Kapha

Chatpatak—A combination of six  
specific carminatives

Ghee (clarified butter from cow's milk)

2. *Chhagaladya Ghrita (comparable to malted cod liver.)*

R/

Ghee

Goat's meat

Sugar

Barela (S. cordifolia)

Goruk Chakulia (S. Spinosa)—astringent

Aswagandha—Nervine

Hemidesmis—alterative

Gulanchar—Diuretic

Bhuinkumra (I. Digitata)—alterative

Kakoli

Khira-kakoli } —soothing roots from Himalayan region.

3. *Hingsradya Ghrita.*

Ghee.

Cow's milk.

Hinsra (Kalkora) [Cataria sapiria]—antiseptic, antiperiodic.

Natakaranj (Guilandina Bonduceli)— do. do.

Triphala—laxative.

Trikatu—carminative.

Chita (P. Zeylanica)— do.

4. *Tejobaladya Ghrita.*

Ghee—Sathi (C. Zeodoria)—food.

Carminative—P. Chava, P. Longum, P. Zeylanica.



- Bach (*A. calamus*), Sonchal salt, Rock salt.  
 Astringent—*E. myrobalan*, Pulv. Bael.  
 Stimulant—Kur and Pushkar.  
 Expectorant—Katki (*Helebore* - *P. Kurrooa*), Talispatra.  
 Fragrant—Katruia (*Andropogon*, *Schœmauthes*)  
 Laxative, anthelmentic,—Palas (*Butea frondosa*)  
 Bitter—Bhui-amlā (*P. Neruli*)  
 Check Pitta—Jibanti (*C. orientalis*)

### 5. *Sringigur Ghrita*.

It contains—

Expectorant—Kantikari (*S. Xanthocarpum*)

Brihati (*S. Indicum*)

Basak (*A. vesica*)

Bamanhati (*C. Siphonanthus*)

Kakrasringhi (*R. Suceedania*)

Bansalochan (*Bamboo manna*)

Talispatra (*Pinus W.*)

Diuretic—Gulancha (*T. cordifolia*)

Satamuli (*A. Sarmuntosus*)

Gokhur (*T. Terrestris*)

Parul (*S. Suaveolus*)

Carminative—*L. Pepper*, nutmeg, cloves, tejpatra, cinnamon, cardamom ; dried ginger.

Stimulant—Kur (*A. auriculata*)

Food as basis—old molasses, ghee, cow's milk and honey.

This is also comparable to malt codliver.

### 6. Chaybana Prasha —This is too well-known as a medicated food.

It contains—ghee, sugarcandy, oil sesamum, honey—Nitrogenous pulses mug and mashani (*P. mungo* and *Roxburghi*), starch (*Sathi*)

Besides vegetable drugs—

Dasamul—checks Vayu-Kapha.

Astringent—(stimulate sympathetic)—Barella, Blue lotus, *E. myrobalan*.

Carminative—*L. Pepper*, cardamom, Tejpatra.

Expectorant—Kakrasringhi, Vasak, Katki.

Fragrant—Nageswar, Aguru,

Bitter—Bhui-amlā (*P. Neruli*)

Kakjangha (*Leea Hirta*)

Checks pitta—Jibanti, Punarnava.



Nervine—Aswagandha, Kur.  
 Laxative—C. myrobalan.  
 Diuretic—Gulancha, Red Sandal-wood.  
 Diaphoretic—Mutha.  
 Alterative—Bhui-kumra (I. Digitata)  
 Hence it is a tonic in so many conditions.

(O) *Medicated Wines.*

1. Kanakasava contains—

Cerebral stimulant—Dhatu.  
 Expectorant—Vasak, Bamanhati, Talispatra.  
 Laxative—Liquorice.  
 Carminative—L. Pepper.  
 Fragrant—Nageswar.  
 Astringent—Dhai phul (W. Floribunda), grape, sugar, honey.  
 Fermented.

2. *Draksharishta.*

It contains raisins, old molasses, 'Bit' salt, B. and L. Pepper.  
 Carminatives—cinnamon, cardamom, Tejpatra.  
 Fragrant—Nageswar, Priyangu.

(P) *Medicated oil to apply to chest.*

1. Vasa Chandanadi Taila.
2. Brihat Chandanadi Taila.

The above prescriptions do not exhaust the list accumulated in Ayurvedic books in the course of centuries, but we have given enough which will meet all conditions of Primary and Secondary Swasa with complications.

We shall now try to study the principles involved :—

First of all we must remember that in acute and simple cases, vegetable drugs are used. The more complicated the case, the greater the combinations. Thus in place of one expectorant or one carminative, a number of them are used to make the prescription lengthy. This is, our critics may say, due to absence of accurate knowledge of individual drugs but is really a combination of simpler drugs to act on different parts of the same system in different times. Instances are not rare of such shot-gun prescriptions in modern pharmacopœia. The best example is Worberg's Tincture recently expunged from the modern pharmacopœia. The allopathic prescriptions are getting simpler at the present time due to the effect



(uncreseines) of homœopathy and partly to more accurate knowledge of individual drugs. But the art of combination is dying out or left to the ingenuity of Pharmacist which is not a desirable state of things.

Secondly in chronic cases there is "dhatu" (tissue) waste and such cases are treated with dhatus (metals) combined with non-metals and vegetables. The study of Dhatus (metallic drugs) start with the Tantric period and based on advance in knowledge of chemistry.

Regarding the dhatus, we have the highest metals (gold and silver) to correct derangement of the highest tissues like the nervous tissue, we have the scale like Tin which act on the urinary system (the lowest in the trunk) correcting any kind of Prameha (urinary abnormalities).

Turning to the treatment of various kinds of *Swasa* we have as in allopathy the various smokes, the various Linctus etc., to relieve the throat. The carminatives of the group of the various *Pipers* *e.g.*,

Pippali—L. Pepper,

Marich—B. Pepper,

Bach—Acorus calamus,

Dried Ginger, etc.

are good for throat and we have various combinations like Trikatu, Panchakol, Chatpalak, etc., variously taken as powder mixed with decoction, medicated ghrita, etc.

They are largely used in combination with other drugs.

In Vayu-Kapha asthma of the chest which is a primary or secondary disease we have various antispasmodics and expectorants with suitable adjuvant medicine according as the heart, the brain or other organs are involved. It is the rule to give expectorants with carminatives.

In Vayu-Pitta Asthma of the chest where there is little secretion or expectoration and which is reflex from the abdomen or other parts of the body (*e.g.*, liver, stomach, intestines) expectorants are not given in the first stage, but carminatives, laxatives, with specific combinations for asthma are given.

There is one point to note in the principle of the chest disease in allopathy from Ayurveda. In chest diseases in the congestive stage with no expectoration we prescribe Iodides with expectorants with the idea to loosen the cough and



then get it out of the system. The congestion of the lungs is followed by secretion and the time of cure is prolonged.

In Ayurveda in the stage of congestion, no attempt is made to relieve the congestion by promoting expectoration, but attempt is made to cut it short, not allowing it to proceed to the stage of secretion. At this stage milk and sweats are not given as food for these make the congestive stage proceed to the secretive stage.

This principle of treatment has been followed by the writer with marked success in the treatment of Broncho Pneumonia in children. Instead of prescribing Iodide and stimulant expectorants, he uses small doses of Iron which reduces the congestion and cuts short the disease at the outset. It has rarely failed him, of course once expectoration has begun, expectorants are given in both Ayurveda and Allopathy.

In vayu-pitta irritation of the intestine marked by stoppage of secretion and excretions, the treatment is directed to loosen the secretions and promote their flow, Diuretics, Laxatives, etc. are given.

In Dyspeptic asthma—carminatives are given.

In vayu-kapha condition of the intestine where there is increased and exaggerated secretion, astringents are given not only to check the flux but to stimulate the sympathetic and promote tone of the intestinal organs.

In vagotonics—astringents are given with Nervines. In sympatho-tonics nervine sedatives, antispasmodics, etc., are given.

Besides specific treatment, symptomatic treatment is done to check individual symptoms, *e.g.*, anthelmintics for worm.

In weak patients medicated wines, medicated foods analogous to malt and codliver are given. In anæmic subjects hæmatenics are given variously combined.

Medicated oils are rubbed on the chest more for soothing effect than counter-irritation.

Calcium when indicated is given in various forms as Calci Carbonate (Lime) as burnt pearl, coral, conchshell, bivalve shell, etc. It will be interesting to analyse them to find out what other ingredients are admixed with calcium in such medicines.



Besides specific combinations for swasa, we find various specific combinations, *e.g.*,

- Brihat Panchamul—check vagotonic or excite sympathetic vāyu.
- Svalpa Panchamul—check kapha.
- Dasamul—check vagotonic condition.
- Triphala—Laxative combination.
- Trikatu—Carminative combination.

In conclusion it may be said that the various combinations in different prescription if properly studied, will give us the key to understand not only the principles of Ayurvedic treatment, but will enable any Ayurvedic practitioner to make his own combination and prescribe like any allopath. The charge that Ayurvedic practitioners only use patent medicines will then automatically disappear, if the practice of prescribing like allopaths is followed.

It is unfortunate that the trend of modern Allopathic practice is to use more patent medicines, depending on their supply of such drugs combination from pharmaceutical chemists. Hence European doctors often remark that in spite of the very rich Indian pharmacopœia, Indian practitioners resort more to the newest and latest patent or proprietary preparations manufactured in Europe or America. Allopathy is making the same mistakes as Kavirajes are doing, viz., the use of proprietary patents to mystify their patients.

---

The practice of self-control, residence in a room protected from undue exposure, sleeping only at night, tepid water and moderate physical exercise always conduce to the better preservation of health.

---

An intelligent physician, considering the nature of the disease, the strength and temperament of the patient, and the state of his digestion as well as the seat of the affection, the physical features of the country and the then prevailing season of the year, should prescribe a diet which he thinks the most proper and suitable to the requirements of the case. Since the conditions infinitely vary in the different types of diseases and even the same conditions do not obtain in one and the same type, physicians generally prescribe a diet of their own selection, determined with regard to its general effect on health, in preference to one that has been laid down in books of medicine.



## PURGATIVES IN AYURVEDA

BY

KAMALA KANTA SHARMA.

( Continued from May 1925 issue. )

*The Three Myrobalans.*

हरितकी (Chebulic Myrobalan) acts directly in allaying *Vayu* irritation and as a rejuvenator and a powerful invigorating agent of the organs of sense on which it exerts a soothing effect. It is a destroyer of all diseases, specially of those following the use of sweet or richly cooked dishes.

अमलकी (Embelic Myrobalans) exerts a cooling and refrigerent influence and is a destroyer of *Pittam*, *Kapham*, and *Medam* (fat).

बिभितकी (Belleric Myrobalan) is mild in action and is a subduer of *Kapham* and *Pittam*.

These three fruits together are called the three myrobalans. The group is acid-astringent in taste and is slightly bitter and sweet.

Powdered *Trifala* one part taken regularly with clarified butter 3 parts prolongs youth and rejuvenates the system.\*

All other fruits of the purgative class may be administered in the way *Haritaki* is prescribed

But regarding the administration of the fruit known as *Chaturangulam* (*Shondal*—*cassia fistula*), some special precautions should be observed. These fruits should be collected in proper season, and should be kept buried in a bed of sand. After a week take them out, and get them dry under the sun and collect the marrow-like substance obtainable inside the fruits. Then have them pressed in an oil-mill to extricate the essential oil. The oil can also be prepared by boiling the marrow in water and may be used safely as a mild purgative for children up to the 12th year.

*Chaturangulam* which is called *Aragbadha* or *shondal* is a very harmless mild purgative, and can safely be administered in fever, heart disease, haemoptysis, abdominal tympanites and colic, where *Vayu* and *Pittam* predominate.

\* *Trifala* :—*Haritaki*  $\frac{1}{2}$  tola, *Bibhitaka*  $\frac{1}{4}$  tola,

*Amlaki*  $\frac{1}{2}$  tola, The stones are not to be used.



*A Mild purgative*

R/

- 'Pulverised कृष्ण ... (Alpotaxis auriculata)  
 " शुण्ठी ... (Dry ginger).  
 " पिप्पली ... (long pepper)  
 " मरौच ... (Black pepper).

aa. Taken in castor oil, followed by a drink of hot water acts as a good purgative.

*A Purgative for Children, the aged and the Infirm.*

Castor oil is recommended to be taken with either the decoction of the three myrobalans, milk or meat juice. This mixture acts as a very mild purgative specially applicable to the weak, anemic, the old, the delicate and those suffering from cachexia, attended with or following sores or ulcers.

*Milky Exudations of Plants and Trees used as Purgatives.*

Of all such purgatives *Monasha-kshir* or the milky exudation of the *Sudha* plant possesses the most virulent action. Special care should be taken in its administration as when administered by the impudent quack it may kill the patient, while in the hands of an intelligent practitioner it allays many incurable ailments.

Prepare a decoction of the group of drugs known as "*Brihat Panchamula*" (see *Mahat Panchamulam* already detailed), *Brihati* (*solanum Indicum*) and *Kantakari* (*solanum Janthocarpum*) seven parts, and *Sudhakshir* cone part; boil the compound over charcoal fire. When ready, the medicine is administered in 2 tolas doses with either cream of curd, wine or sour rice gruel as already detailed while speaking of *Trivrit* compounds.

Saturate rice in the milky exudation of the *Sudha* plant and prepare a gruel in the usual way, which acts as a ready purgative. A porridge prepared of wheat treated in the above manner with the addition of clarified butter, milk and treacle, possesses purgative properties

*Sudhakshir*, sugar and clarified butter mixed together and licked in as a linctus acts as a purgative.

Pulverised round pepper treated in *Sudhakshir* and mixed with a little rock-salt is recommended as a purgative.



Pulv. *Kampillakam* (*Kamalagoori*) saturated with *Sudhakshir* dried and made out into boluses or powders is used as an effective purgative.

*A mild purgative for the delicate.*

R/

समला	...	(a variety of <i>Sudha</i> called <i>origaum valgoris</i> )
शङ्खनि	...	( <i>Kalmegha</i> )
दन्ति	...	( <i>Laghu</i> variety of <i>croton</i> root)
त्रिवृत	...	( <i>Trivrit</i> )
आरगवधमञ्जा...		( <i>Cassia fistula</i> ., aa.)

Pulverise and saturate in cow's urine and then soak in *Sudhakshir* for seven consecutive days. Prepare a garland of flower or a piece of cloth strewn over with this powder. The use of either of these by a delicate person induces a mild movement of the bowels.

*An all-round purgative to suit all cases.*

R/

Pulv. Trivit	...	...	... 1½ tolas.
„ Trifala	...	...	... 1½ „
„ Baberang seeds	...	...	... ½ „
„ Round pepper	...	...	... ½ „
„ Carbonate of Potash	..	..	... ½ „

Mix well and prepare a *Modaka* or confection either with sugar and clarified butter or treacle and administer in required doses. This purgative does not necessitate any strict observance of diet and mode of living. It is very effective in allaying abdominal cysts, pelvic cellulitis, disinclination to food, intestinal worms and many other diseases arising out of the deranged condition of *Kapham* and *Vayu*.

All the preparations of purgative remedies from roots, barks, fruits and milky exudations of plants, as detailed above, should be carefully prescribed by the intelligent physician after a patient observation of each individual case with reference to the nature of the affection and its specific indications.

The intelligent physician mastering these details should prescribe and administer purgative drugs through the medium of clarified butter, sesamum oil, milk, wine, cow's urine, meat juice and other articles of dietary, according to the nature of the diseases and the condition and mental attitude of the patient.

The six kinds of purgatives detailed above are :—(1) milky exudation, (2) expressed juices, (3) pastes, (4) decoctions, (5) cold infusions and (6) powders of the medicinal drugs or herbs. Regarding their potency, the first is the strongest, while the following ones are gradually weaker.

Ref.—*Sushruta Samhita, Sutrashtanam, Chap. XLIV.*



# A BRIEF HISTORY AND OUTLINES OF AYURVEDA

BY

MAHAMAHOPADHYAYA KAVIRAJ

GANANATH SEN, SARASWATI, M. A., L. M. S.

( *Continued from P. 112.* )

—o—

So much for the Vedic period. Considering the vast fields covered by the Vedas, what we have been able to summarise above is only a birds'-eye view. Any one may find out hundreds of other informations from this fountain of world literature.

The legends connected with the origin and progress of Ayurveda during the Vedic period are interesting. They are briefly stated in the current works (e.g., Charaka, Sushruta) as follows. Brahma, the Creator of the universe, evolved the science of Ayurveda by meditation and taught Prajapati. He imparted it to the twin-gods Ashwins, who became the divine physicians. From them, the science descended to Indra, "the learned King of the gods". He instructed many Rishi pupils who approached him out of compassion to humanity. Of these—two pupils—the Sage Bharadwaj or Atreya and the Sage-King Divodas Dhanwantari of Benares became prominent instructors. The former started "the Atreya School" or the School of Physicians. The latter, the Ascetic King Divodas Dhanwantari (who is said to have been the incarnation of the Physician god Dhanwantari, originated the "Dhanwantari School" or the School of Surgeons. This brings us from the legendary to the palpable period of Sage Authors.

## II THE PERIOD OF SAGE AUTHORS & ORIGINAL RESEARCH.

Of the two schools mentioned above the great exponents of the former school or the School of Physicians were the six disciples of Atreya. These were by name—Agnivesha, Bhela, Jatukarna, Parashara, Hareeta and Ksharapani—each of whom wrote a large comprehensive work known after his name on the Practice of Medicine. The exponents of the other School of the School of Surgeons were the disciples of Dhanwantari, the Ascetic King of Benares. These were among others, Sushruta Bhoja, Aupadhenava, Aurabhra, Vaitaran, Paushkalavata, Gopura-Rakshita, etc., each of whom wrote a compre-



hensive work on the Practice of Surgery and Midwifery. Some of these works are still available in a revised form and references from these and many other ancient works are still found to occur extensively in later compilations. All these authors may be said to have done real original work in the field of Medicine and Surgery.

As early as this or perhaps a little later, Ayurvedic practice became divided into eight specialised subjects :—

- (1) *Shalya* or Surgery and Midwifery (together).
- (2) *Shālākya* or Surgery of the Eye, Ear, Nose and Throat.
- (3) *Kāyachikitsā* or Practice of Medicine.
- (4) *Bhūtavidyā* or Treatment of mental diseases (including the so-called obsessions).
- (5) *Kumara-bhritya* or Hygiene and Treatment of children.
- (6) *Āgada-tantra* or Diagnosis and Treatment of Poisons,—vegetable, mineral and animal, including Snake-bite, Rabies, etc.
- (7) *Rasayana* or Hygiene and Preventive Medicine for the attainment of sound health, Longevity and Rejuvenation in old age.
- (8) *Vajeeekarana Tantra* or Sexual Science including Sexual Hygiene and Treatment of Sexual diseases.

From the records existing at the present day, it is clear that numerous original works on each of these specialised subjects existed over 700 years ago. They have been quoted from extensively by trustworthy commentators less than thousand years old and some of them still exist either in manuscript or in revised and printed form. Some are being unearthed even now (e. g., Bhela Samhita just published by the Calcutta University). A classified list of about fifty of these works is given below. As a general all-India search for manuscripts has not been made yet, it cannot be said that they are all lost. One point is particularly noteworthy in this connection. Numerous discussions including searching—even sceptic—questions on the properties of drugs and lines of treatment are yet to be found in some of the existing works like Charaka-Samhita showing that the sages of old did not sacrifice reason at the altar of divine inspiration nor stuck to any dogmas when such were unsupported by experience.



## List of the Ayurvedic Works by the Ancient Sages (2nd period).

### I ON KAYA-CHIKITSA TANTRA.

#### Works on the Practice of Medicine.)

1 *Agnibhesha-Samhita*.—This work by Agnibhesha, the chief disciple of Maharshi Atreya and is considered as the greatest work of the Atreya School of Medicine. The modern Charaka-Samhita is identified with Agnibhesha-Samhita but is really a compilation or renovated edition of that work by Maharshi Charaka (about 2500 years ago) and subsequently by the Kashmiri Scholar Didhabala, according to clear admission in the text. Hence quotations of passages from Agnibhesha-Samhita by Bejoy Rakshit, Shri Kanta Datta and other commentators are sometimes not found in the Charaka-Samhita. This no doubt points to the fact that either "Charaka-Samhita" is not Agnibhesha-Samhita" or the book has undergone so much transformation due to revision and supplementation that in many places it does not bear out the original. Thus, it may safely be surmised that before the advent of Charaka, the original work of Agnibhesha was in a frightfully mutilated condition and hence required a thorough revision and supplementing.

Many are of opinion that the book entitled "*Anjana Nidanam*" was compiled by Agnibhesha. We do not find a single quotation from this book in the commentaries of Chakrapani, Bijoy Rakshit, Shri-kanta Datta and others and the language does not quite follow the ancient Sanskrit style. It is probable therefore that the book was compiled by some other author of the same name at a later date. We cannot but admit however that its author knew his subject well and handled in a terse but masterly manner the pathology of diseases so as to make it intelligible even to the beginners.

2. *Bhela-Samhita*.—This is the second Samhita of the Atreya School of Medicine and quotations from it are found in the commentaries of Bejoya Rakshit, Shivadas and other annotators. This work was found in incomplete condition in the famous Library of Tanjore. The writer had the good-fortune of inspecting the original at Tanjore. The work has since been published in mutilated condition by the Calcutta University.

Many affirm that '*Bhela-Samhita*' and '*Bhaluki-Samhita*' are but two different designations of the same work. This view cannot be accepted as sound, as Dallanacharyaya mentions both of them in the same sentence in his commentary on Sushruta. We believe Bhaluki Samhita mainly deals with surgery and the reader is referred to the surgical section for further details.

(To be continued.)



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